

HYBRIDS
NICOLAS CLAESSENS
2022-2023

PROJECT ANTINOMY

Process bundle



Viewing of Hitchcock's Vertigo

Architecture in Hitchcock's movies is almost an actor in itself. The way he makes his own spaces, rooms, buildings... to serve the purpose of filming in it, creates a different way you, as a watcher, are immersed in the scenes and cinematography of his movies.

The scene that caught my interest is the scene early on in the movie, this is the scene where our main character follows the woman for the first time. This scene takes us through a lot of different places and architecture. From a flower store to the streets of a bustling city to even a graveyard. But it is in each scene and each setting we learn about an extra piece to a puzzle we yet can't put together yet. This is reflected in the architecture, thanks to the different moods and typologies of Hitchcock's sets.

Later on in the movie we get a scene on the beach where a character explains the scenes that happened earlier in the movie verbally. We as audience are able to start connecting the dots and try evoke the moods and architecture of each moment to moment and start connecting the pieces



This made me realize there is a strong connection between architecture and a narrative. I feel architecture should serve a narrative or tell a story or to put it in a different way, narrative is part of architecture and architecture part of the narrative, these two are inseparable. Not only words or voices are able to make a narrative but music is a very important key factor as well

Later on I repurposed the audio to create a new narrative to create a new architecture.

The Wrong House by Steven Jacobs

The reflection of how a filmmaker like Alfred Hitchcock can be seen as very much an architect is intriguing but not surprising.

Watching his movie you can see how much care he puts into intricate details to the spaces he designs. How spaces often make sense, so much so that you can even start mapping out how rooms and spaces connect to each other and work in architectural plans.



AI (Artificial Intelligence) (Artificial Images)

I feel in today's age a lot of my peers are advocating for the 'back to basics' mindset. But I disagree, I feel for an architect whose purpose is to design for people and for a society it is irresponsible to throw aside newer technologies and not try to understand them. This is because the society we design for is becoming vastly more technologically advanced by the day.

A technology that is becoming more and more relevant in the zeitgeist is of course Artificial Intelligence. This technology on a surface level doesn't seem that related to architecture even though it has been in our day to day lives for a while now, unnoticed.

I want to explore Artificial Intelligence, if it is as a tool I will be using or as a narrative driver I still have to work out.

New concept of technology by McCleary

- 1 Transparant and Opaque:
more mediators in between the person and the end-goal,
the opaquer it gets.
- 2 Amplification and Reduction:
distance in space
- 3 Appropriateness-to and appropriation-of context:
3 contexts: (1) the physicality of the natural world, (2) the
civil and cultural of those societies, (3) the intentionality of
the individual builder

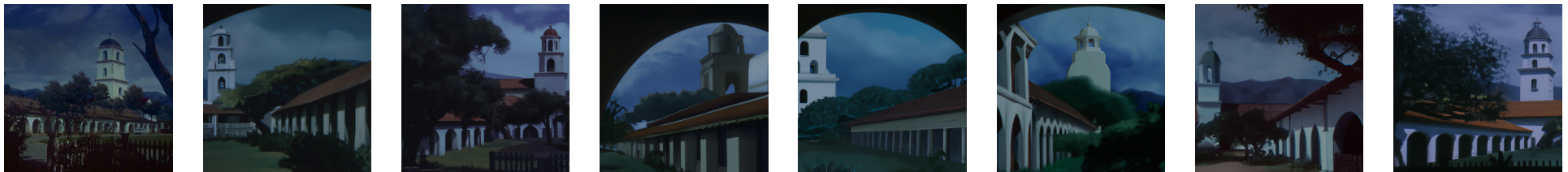
Keyframes from Vertigo





Week 3

AI varying and frame interpolating



Antinomy

Antinomy refers to the incompatibility of two laws. Antinomy can also refer to a paradox or self contradicting sentences.

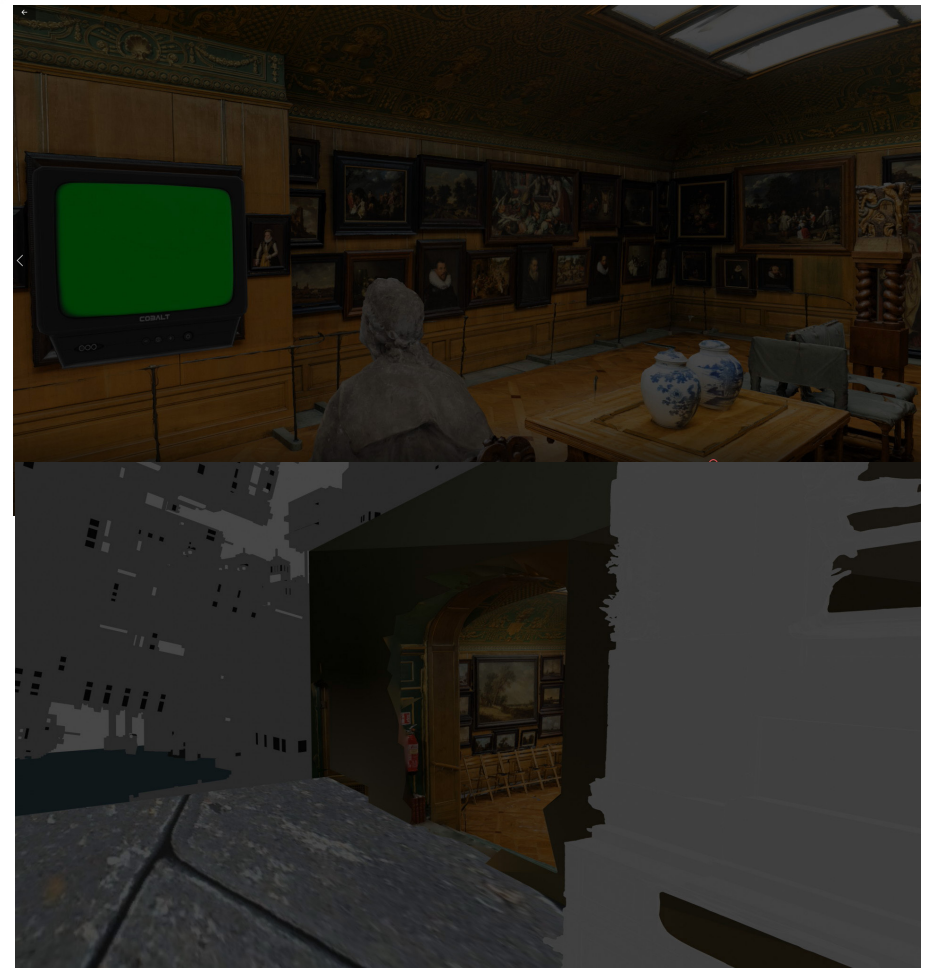
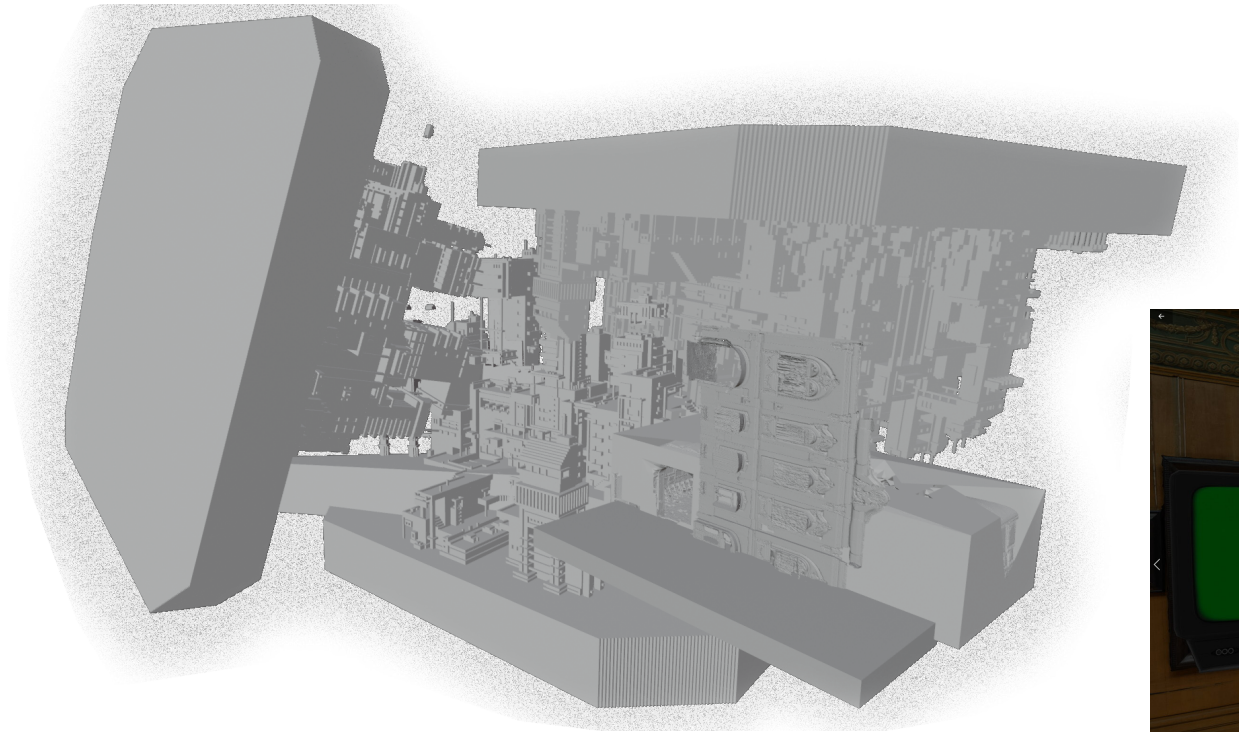
Antinomy is a term used often in philosophy, mostly when talking about the work of Kant. Where there are two statements or realities that in and of itself make sense but contradict each other when put next to each other.

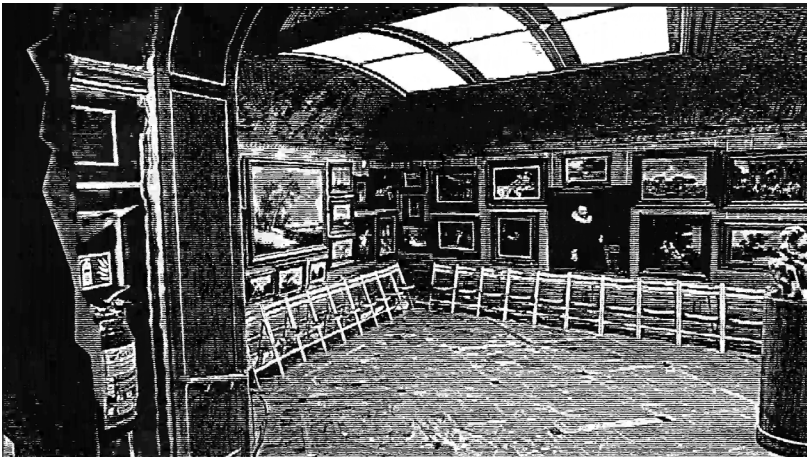
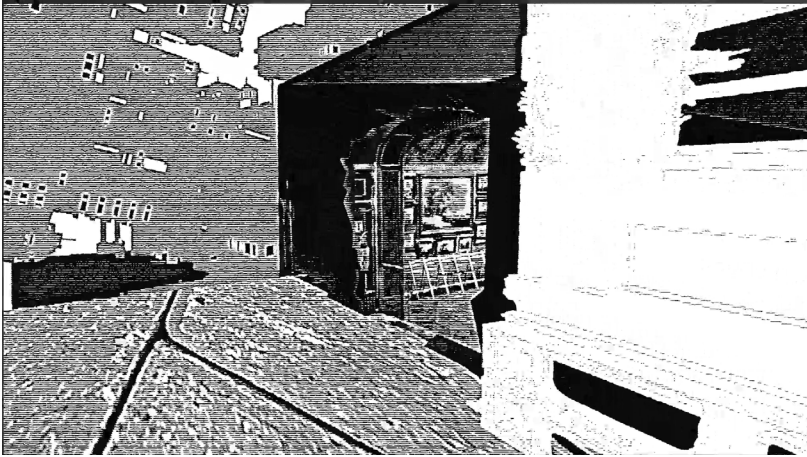
This can also happen visually, in the movies from Hitchcock for example. The architecture in the context of his movies make more than sense, but when put to architecture outside of his movies, in our reality, we feel that something is off. Spaces are larger than usual, backgrounds are flat and textures aren't correct to their real life counterparts. Hitchcock's laws of architecture work in his context but contradict architecture in the physical build environment.

When we notice this antinomy it becomes rather a feeling than a concept in theory.

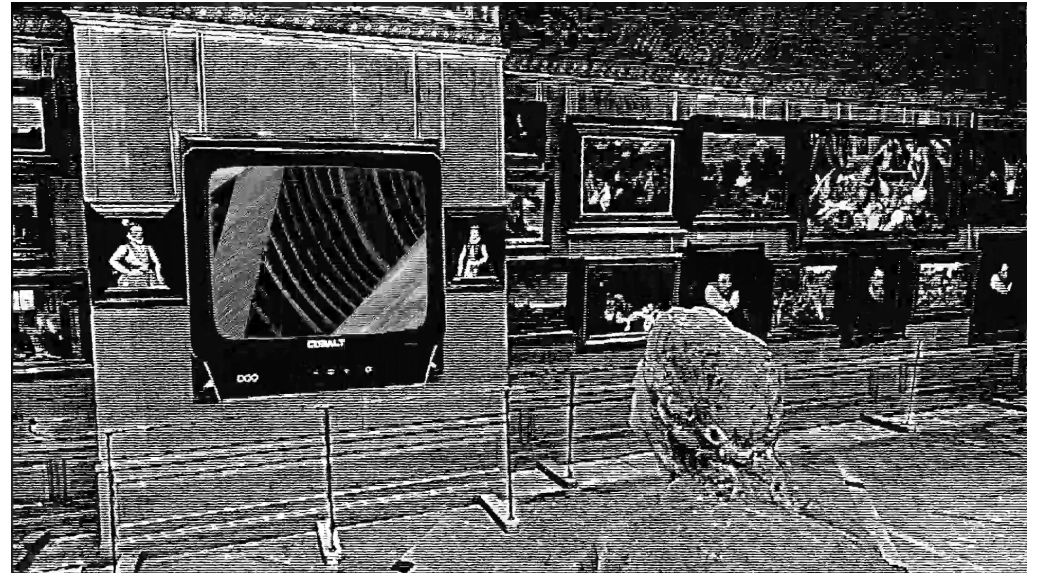
Antinomy of AI generated architecture

If we conclude that antinomy can be a spacial feeling, how does it relate to other visual media? Can we enhance this feeling and what does it change in architecture?



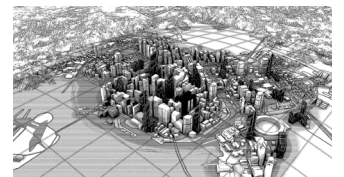
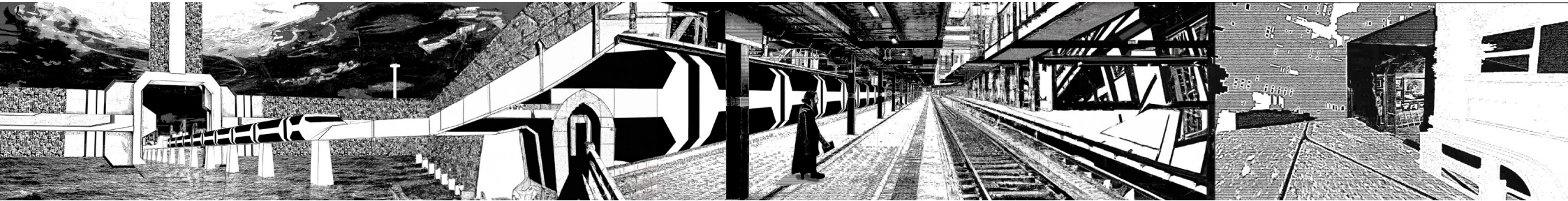
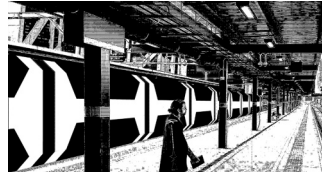
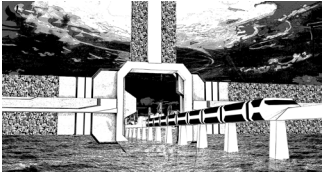


Manga as a narrative style type

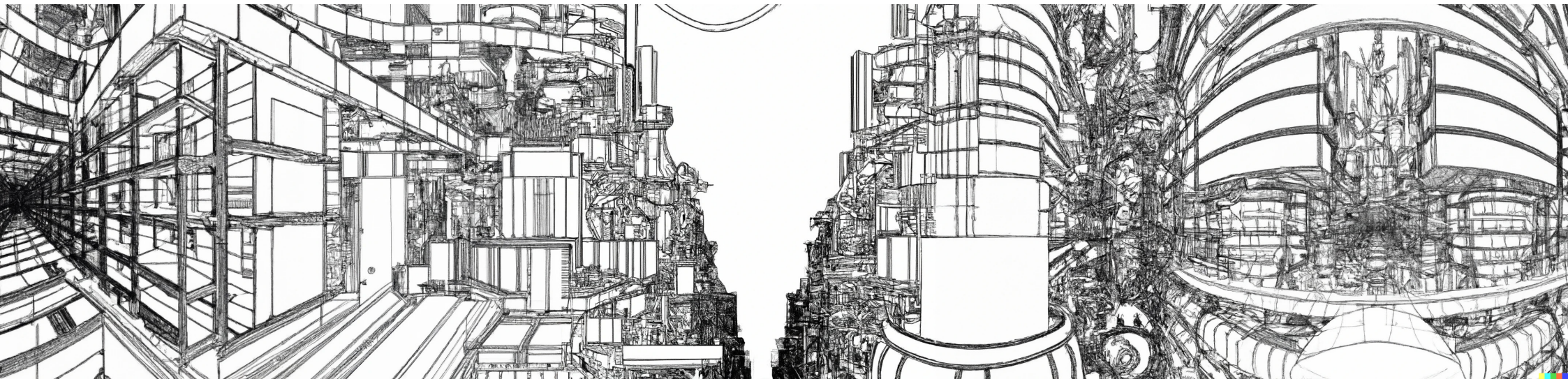


Week 4

Using AI to fill in the gaps



Using AI to fill in the gaps



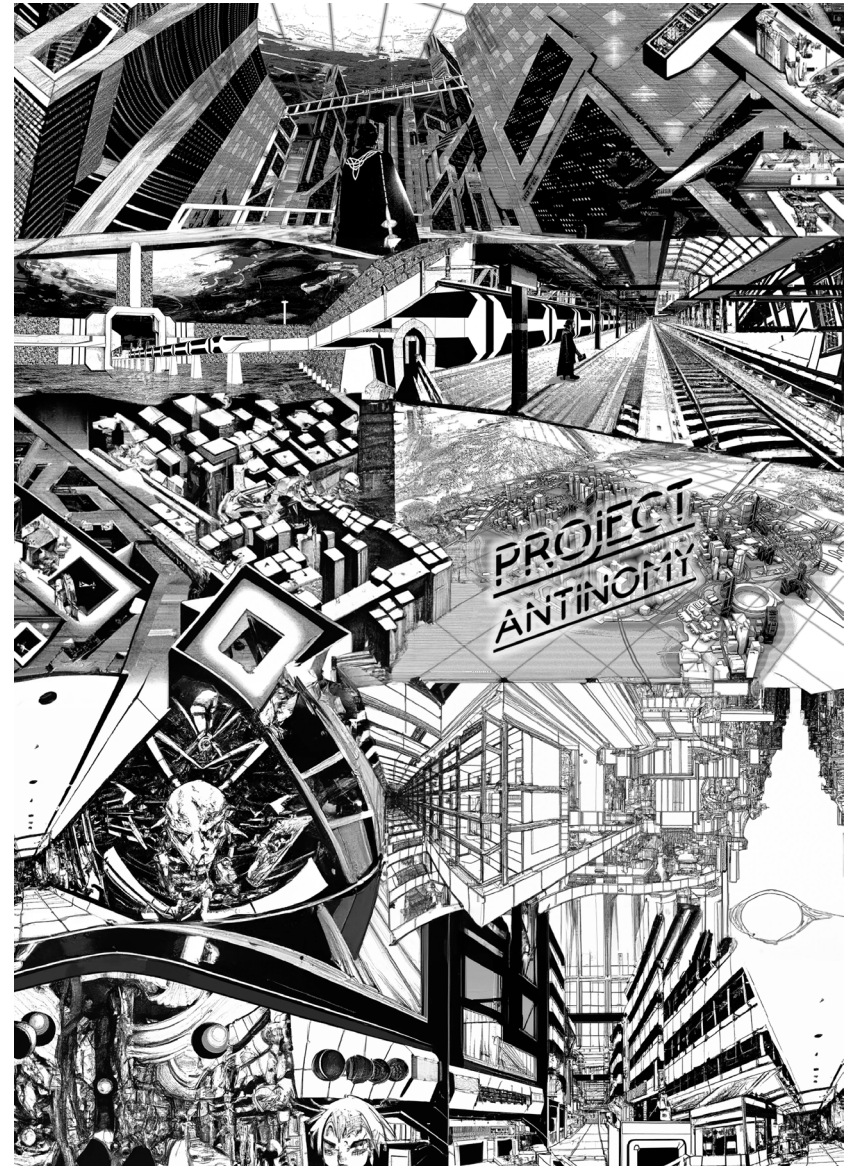
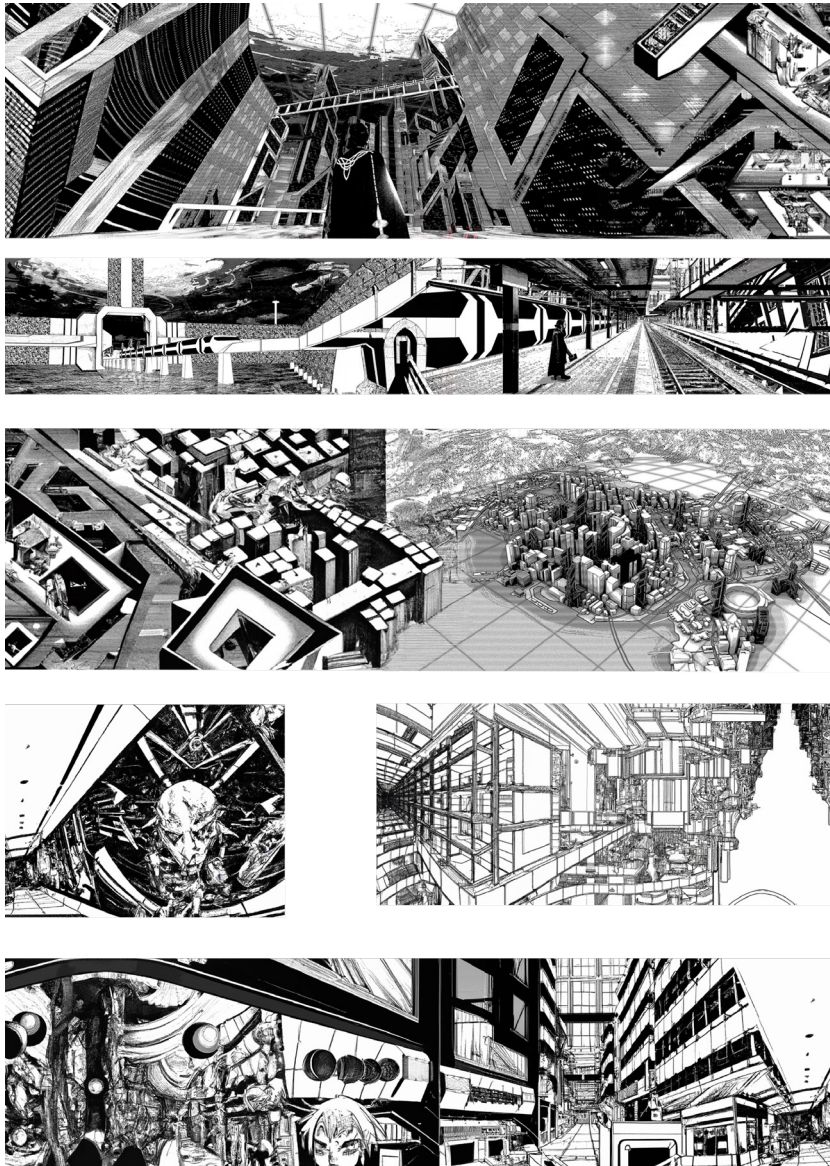
Hiroya Oku's way of drawing

Hiroya Oku, the writer and illustrator of the manga GANTZ, has a very peculiar way of drawing.

He is one of the few who is able to almost seamlessly implement cgi models into his drawing process.



Using AI to fill in the gaps // DRAWING



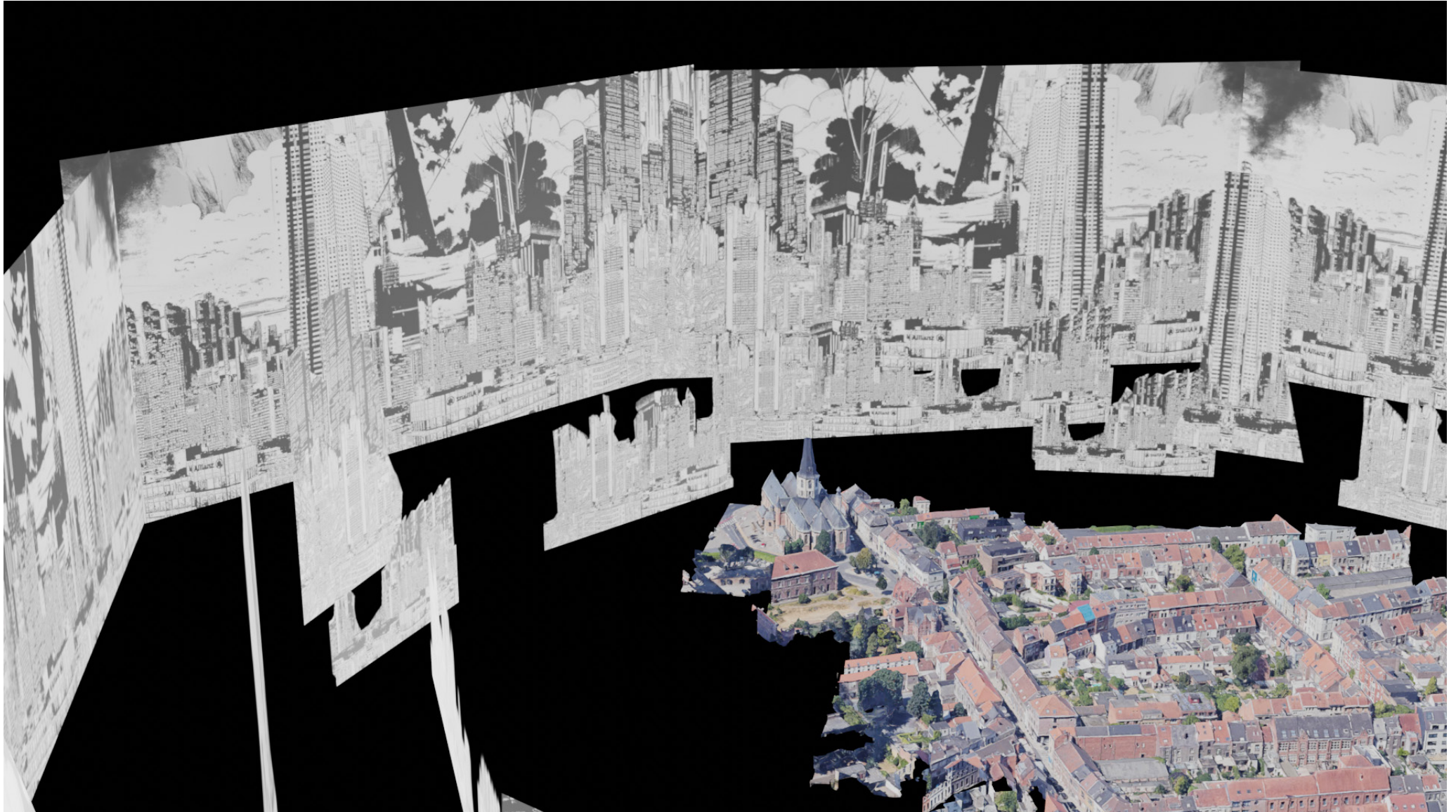


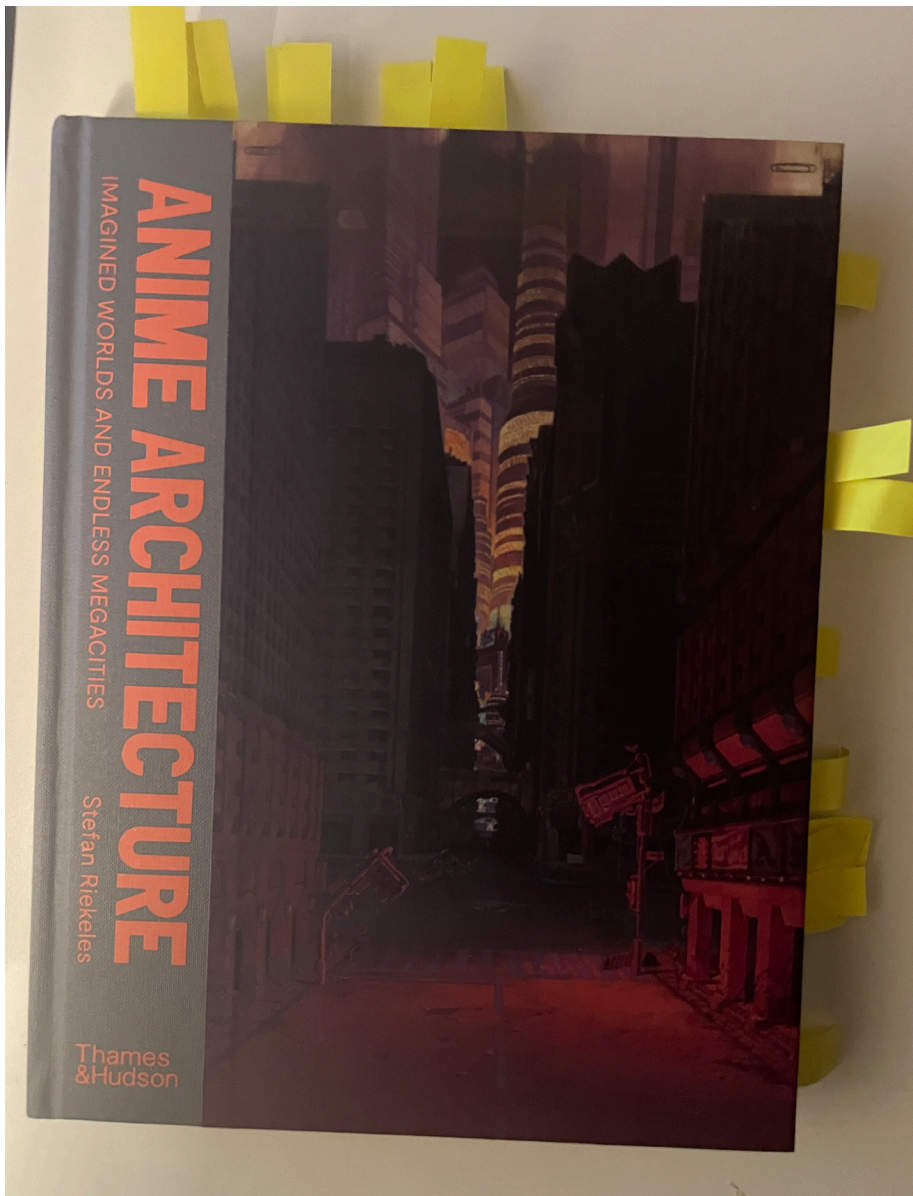




Filling the empty space with AI







By reading this book I have been able to get a deeper understanding on how the minds behind the worlds of Akira and Ghost In The Shell create their worlds.

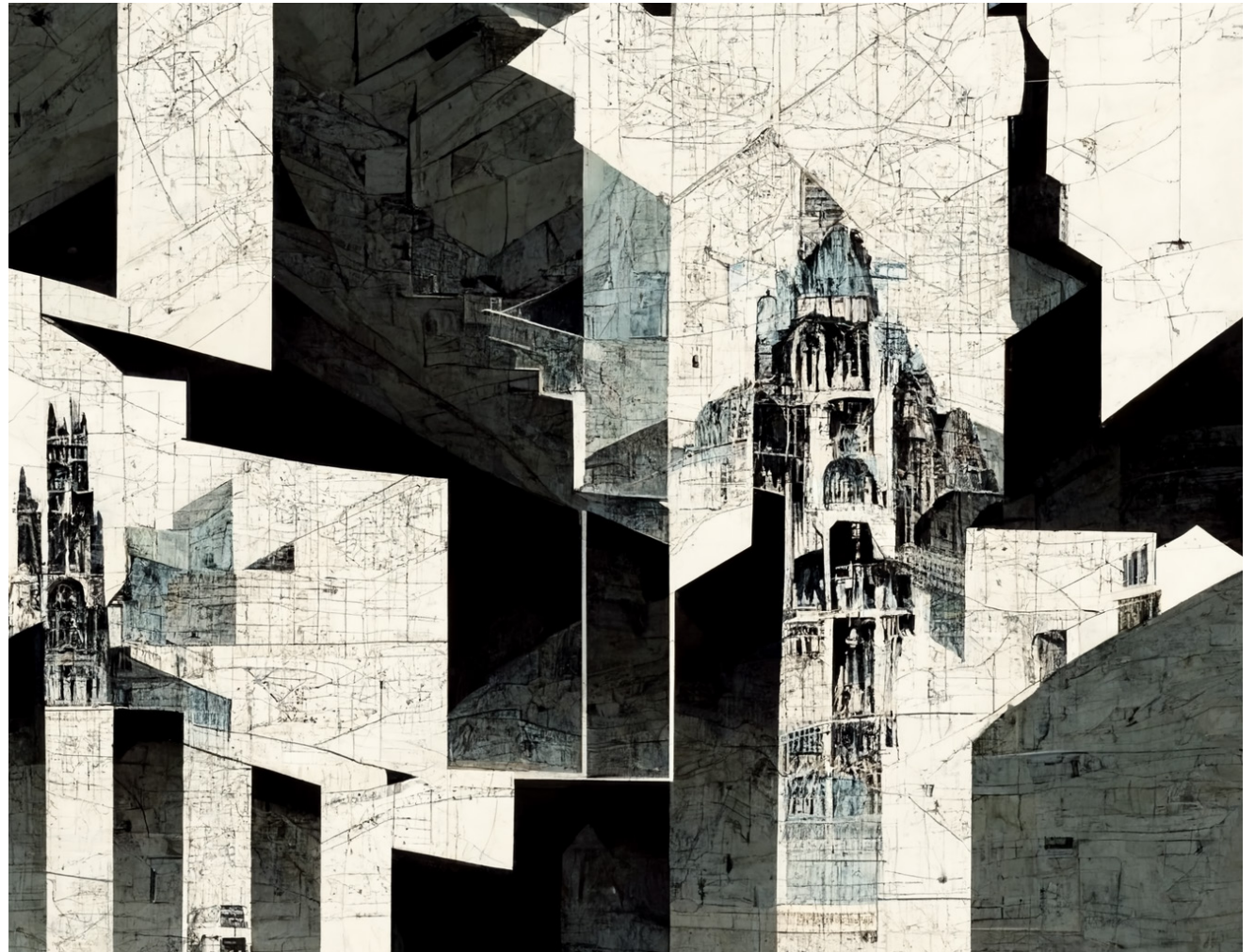
I not only learned about new techniques of drawing the built environment but also the important role architecture plays in shaping a world where a narrative takes place.

Week 6 - 7 (Experimental)

This week I aim to take a step back and try to refocus my project.

The point of these experiments is to understand how AI's such as Midjourney and Dall E 2 work. By understanding how these work we can place these in the larger context of Antinomy.

These experiments will also be used to further expand on the idea of spatial conflict and how we as architects can use this in our design process.



Experiment 1: Generating from diffused conflict

This experiment is based on how the AI, Midjourney, works. The simple and practical answer is that you type out a prompt and the AI generates an image on that prompt. For example, here I typed: "a cozy fantasy village house drawn by hand".



Of course prompts can get more complex to get the exact result you are looking for, but also everything left unsaid can surprise you.

Next I would like to talk about the actual inner workings of AI. How does it generate images?

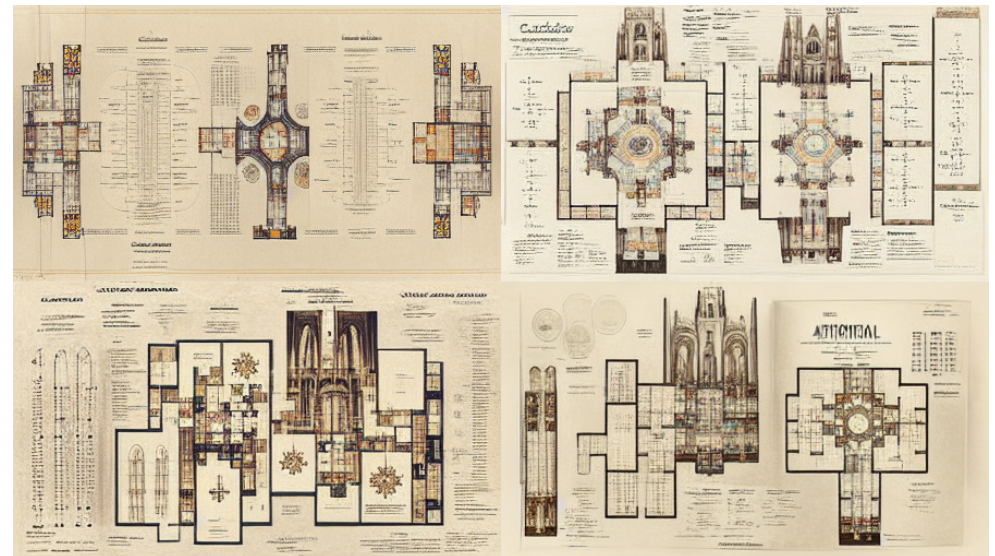
The first important thing to know is that these AIs work with a database, a database full of visual media linked to words. Some of these databases could be specific, such as NovelAI which mostly contains Anime, but in the case of Midjourney it contains a very wide range of different things within its library, from artist to practical objects.

So how does it create? After giving your prompt, it makes a quick 'collage' of images relating to the words within your prompt. The image is then made very noisy. This is where the machine learning in the AI comes in, The AI is trained to reconstruct these noisy images. The model Midjourney uses is thus called a 'Diffusion Model', Dall E 2 works in the same way.

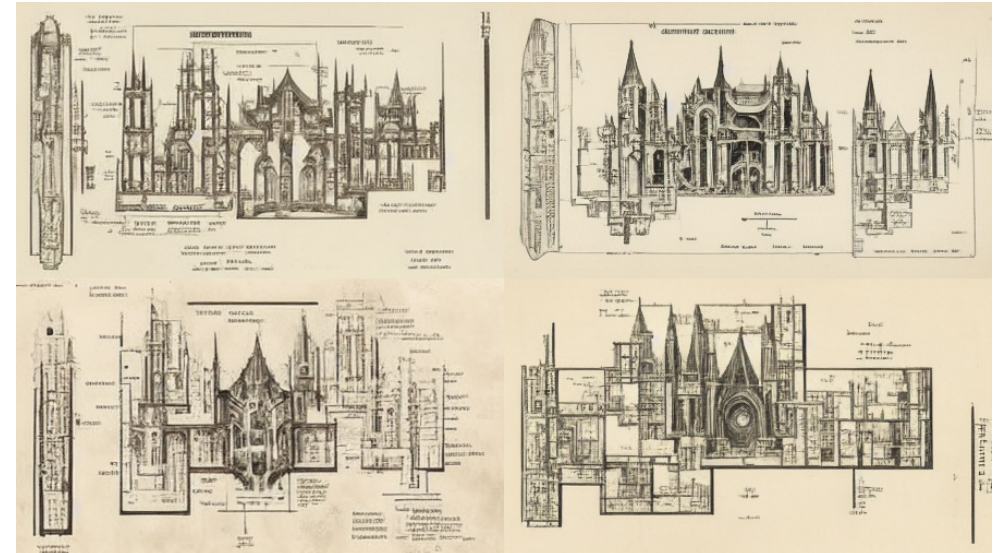
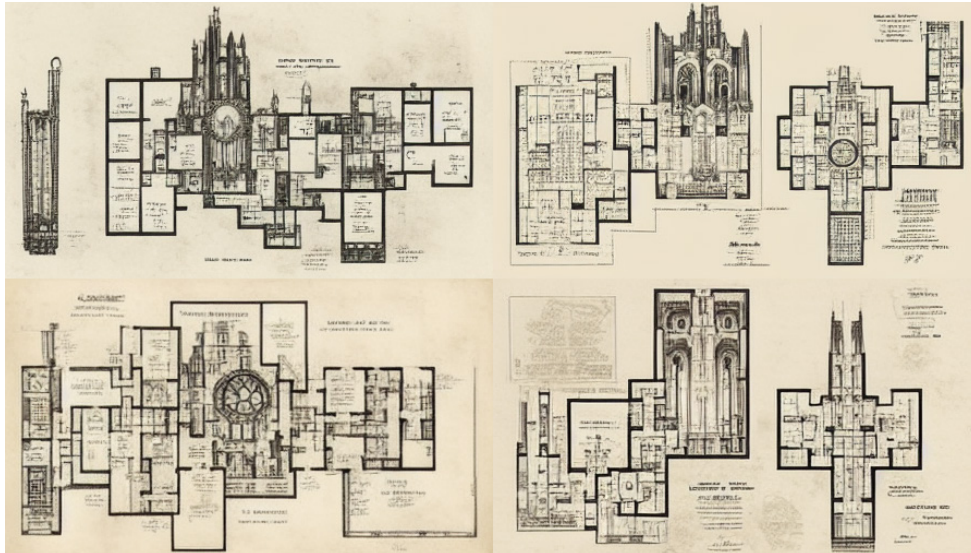
But now where it gets very interesting is that you are able to provide your own images in combination with the prompts for the AI to work on, so you are able to feed the AI a previously generated image and mold it into something new.

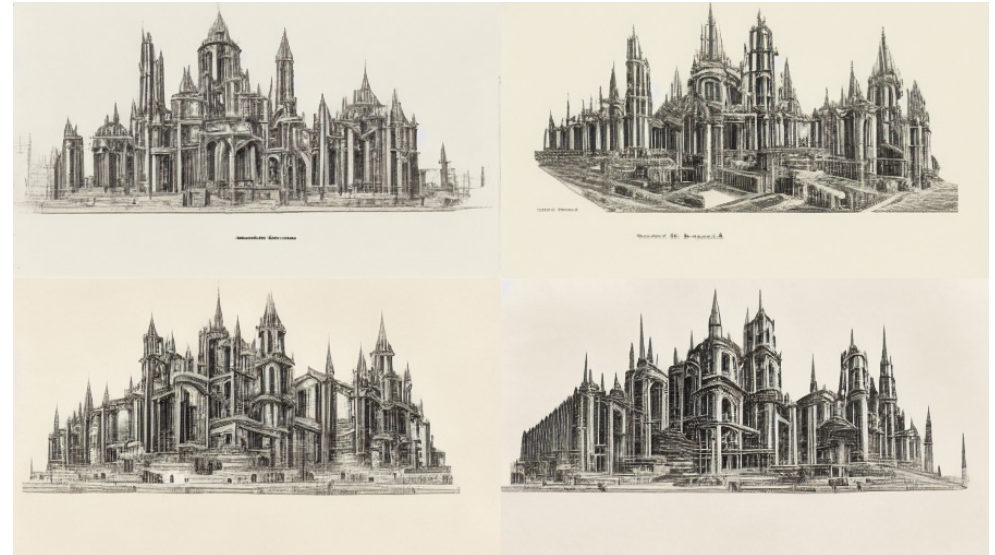
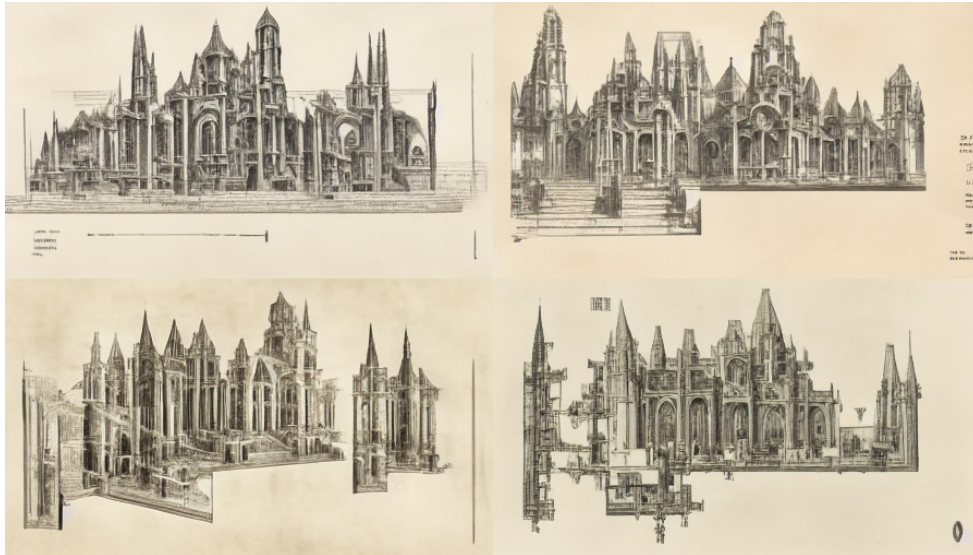
Since at this point in time I see AI as a tool and enabler of antinomy in spatial images I wanted to test out if something of a design process is possible, using the AI diffusion and its large database or neural network of information.

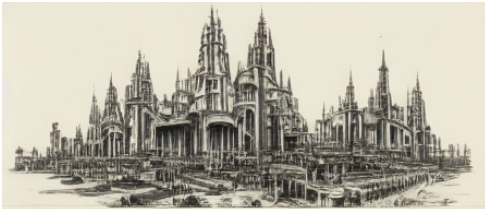
To get to the point, in this experiment I started out asking the AI to generate an architectural plan of a cathedral. The image that came out I would then use as a base for the next step, a section. This way I incrementally worked my way from a cathedral plan to a full render of a city.



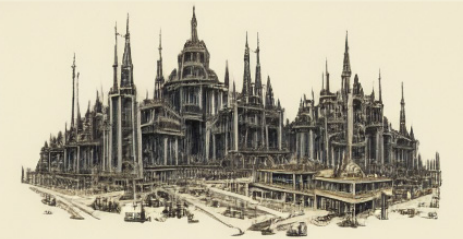
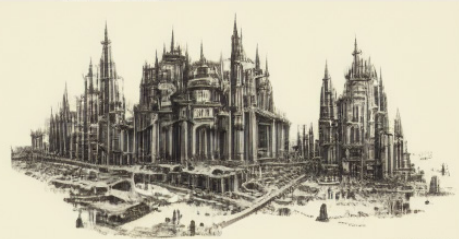
Experiment 1





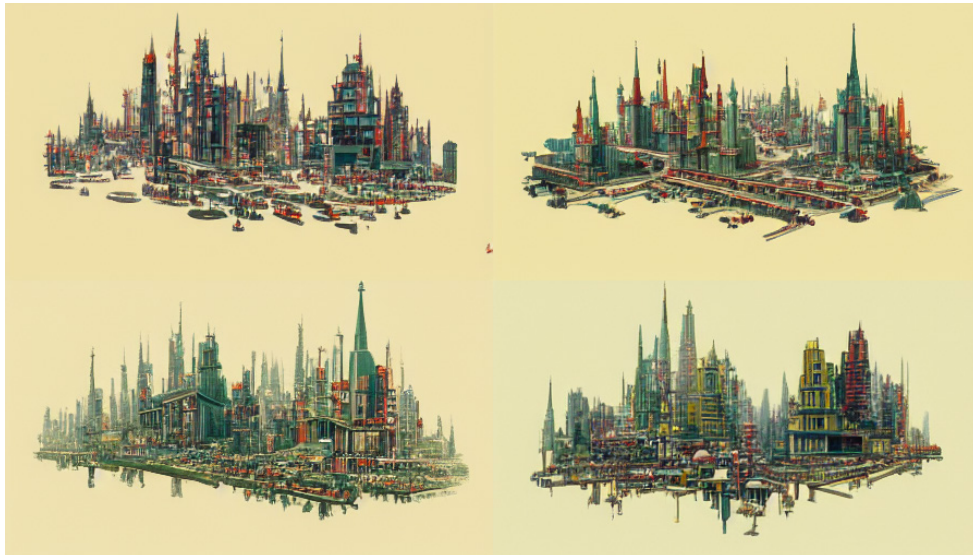


《大教堂》 2010.12.1





Experiment 1





Experiment 1



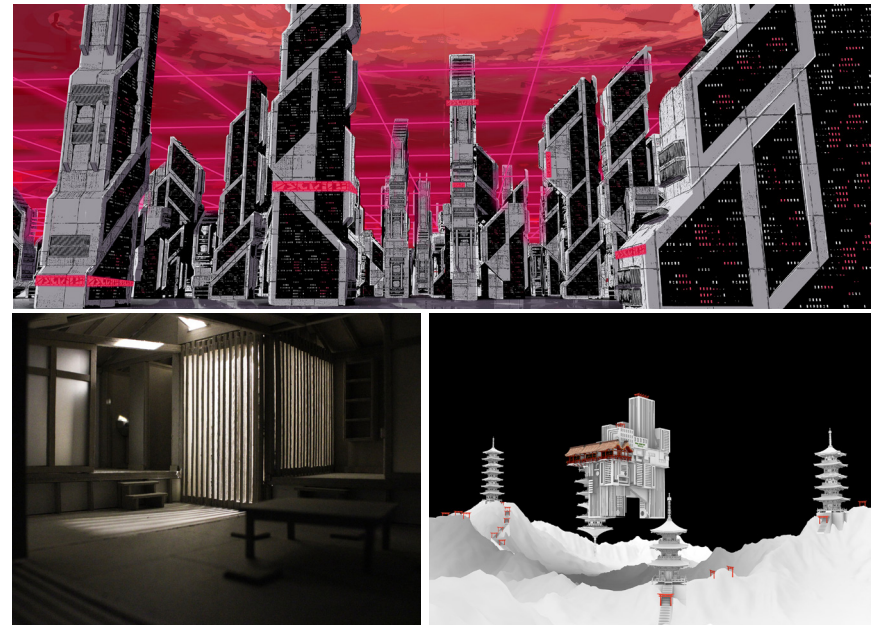
Reflections: Generating from diffused conflict

The architectural qualities the images possess are unmistakable. Being able to pull information from a large database and get a visual representation of that information in almost no time is a gift to a designer. But at the same time these images lack an architectural narrative, by large they often miss a certain context or purpose.

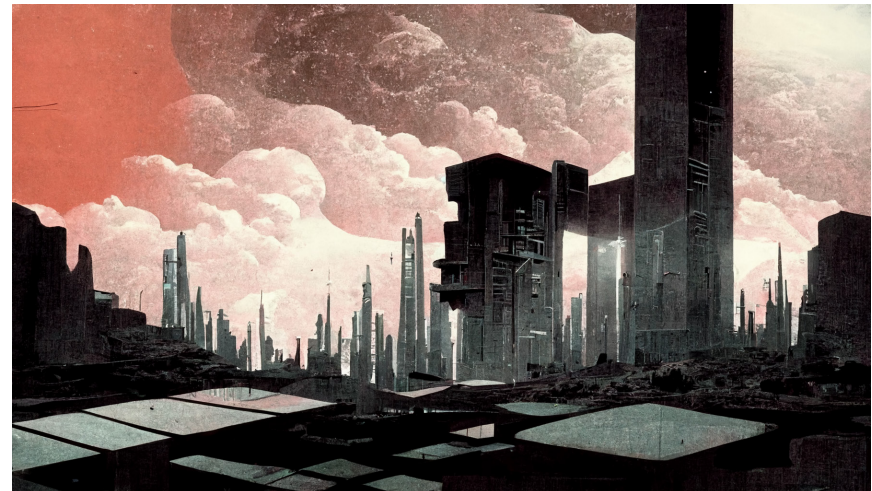
Looking more from the standpoint of seeing AI as a tool, it is very interesting to interact with it as an architect/designer. Midjourney isn't created with the architect in mind and still is able to respond to architectural questions and language.

Where my personal interest really lies is in the ability to expand or recreate your own creations or making a chain reaction of prompts.

ORIGINAL



MIDJOURNEY



Experiment 2: 360 generated space

In this experiment I try to push the AI to a certain limit or rather push myself to a limit using the AI.

I kept myself busy prompting, changing the prompts in small ways or big ways to see what happens. I created multiple variants of generations and made variants of those.

I tried using multiple artist that aren't even architects in the prompts. See what atmospheres and architecture they would create.

All round pushing myself to get used to AI and its potential, but at the same time I also have to learn what is useful for the Antinomy narrative.

Lastly I also tested if the AI would be able to create 360 images i could put into a 360 viewer, with success of varying degrees.

In the next pages i will put some highlights and Images that personally stood out to me....



Experiment 2











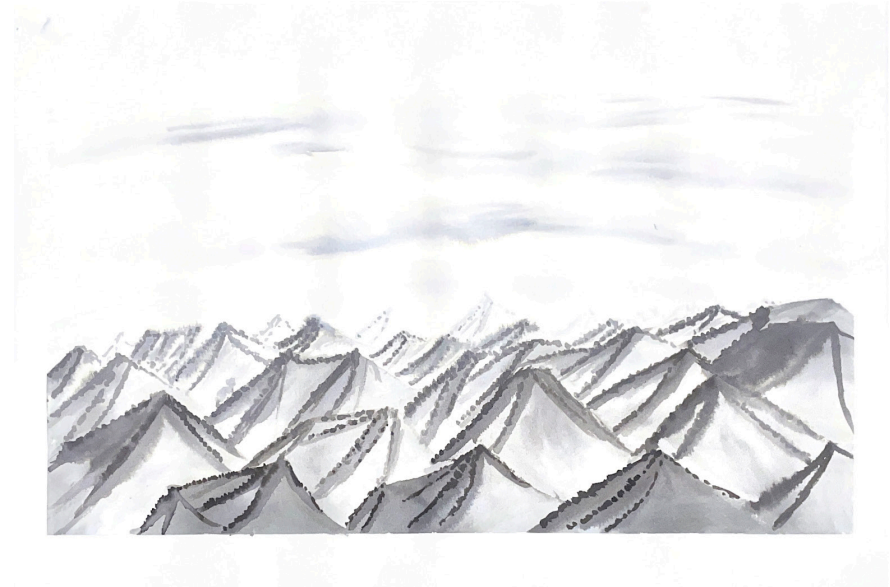
Experiment 3: Touching physical with the meta-physical

In this last experiment I stepped outside of the AI realm for a moment, to better focus on the Antimony and conflict of media discourse.

The aim was to try and combine a highly physical medium with a highly digital medium. The physical medium of choice was in this case a large ecoline painting on a A1 format and I chose a beamer for the digital medium, since these both would be acknowledged and recognized by most as falling in each category.

Now there were two problems at hand. The first being what to paint and beam. The second being how I would be able to combine those two. Ideally these two problems could work hand in hand for a single solution.

To not dwell too deeply on it, since it was an experiment, I also choose two very contrasting contents for each medium. This being a painted mountainside and a busy city, for the painting and beamer respectively.



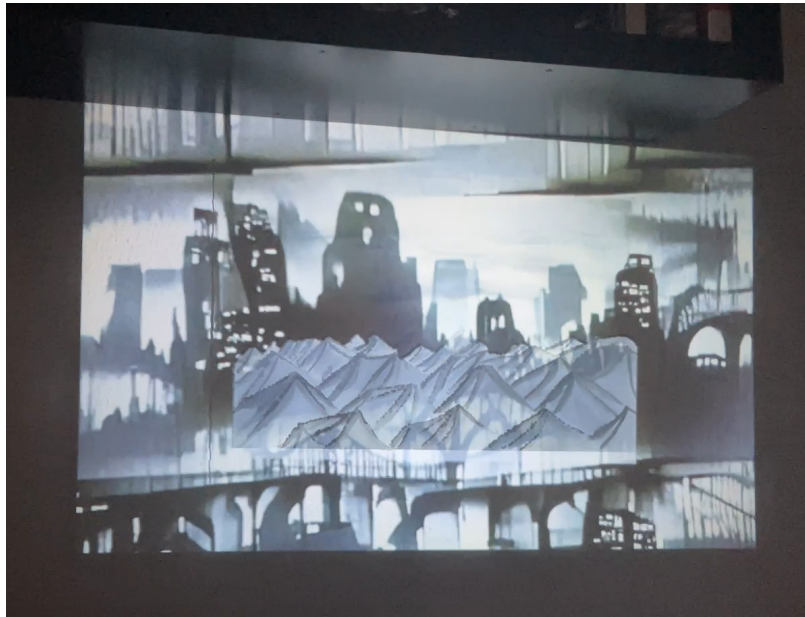
Experiment 3

Now only the problem remains on how to bring these together in a physical space.

Since the way a beamer works with colors, it seemed interesting to use that as an advantage. Black colors would make the underlying painting dark, shadowy and obscured, but at the same time white would bring out more detail by shining a spotlight on specific parts.

The painting was installed on a wall and the beamer would beam an animation on it. It was not clear yet what would work best, shadow, spotlight or animation on top of the painting. So the animation would rotate through different possibilities. The stills were a mix of different shapes in white or black, these shapes relate to the mountains on the painting.





Reflections: Touching physical with the meta-physical

As can be noted, this method can still be seen as rather anecdotal. There exists too much duality where you get either one side or the other. The beamer is quite overpowering on the painting. When the beamer is turned down to a lesser extent you will only feel the painting.

Nothing new is created in this way and thus we cannot speak about conflict or antinomy in this experiment. To also echo previous statements and observations, not a clear narrative can be found to understand the architecture within the image.

But what still is interesting is the powerful duality that exists even when layered on top of each other, they both retain their power in a way. Duality might seem to be needed to be able to go further to create this antinomy.

Or to rephrase antinomy is an extension or a next step within a duality or conflict. By doing this experiment it does also show that antinomy isn't always a given or by-product when a duality touches each other. What could the remaining factor be to create this antinomy?

Everything is already an image

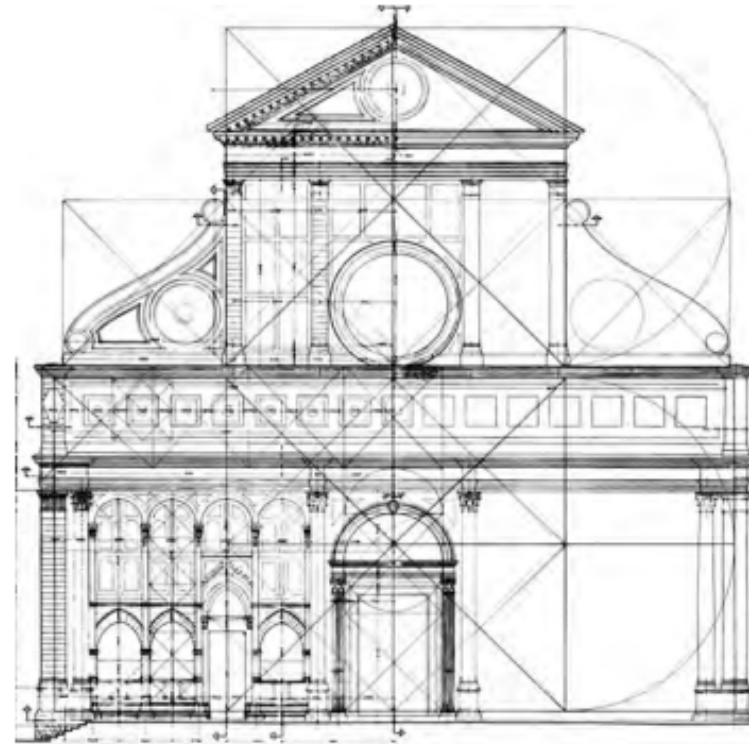
Reading of the text:

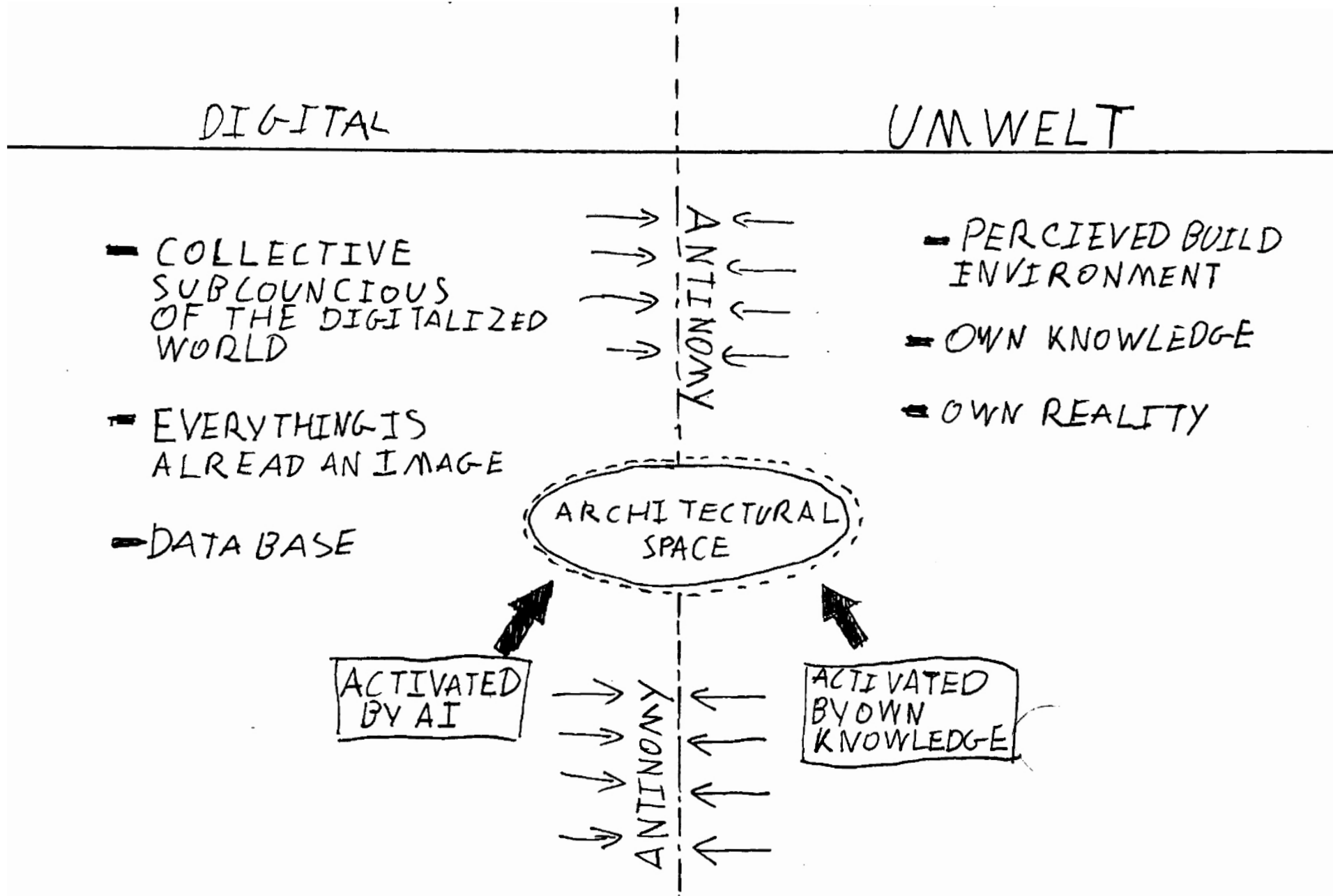
Everything Is Already An Image by John May

In this text he makes the case that everything created and we will create is already an image. Whether it be a hand drawn scanned in to send it to someone or share it online, it is an image.



Galapagos form optimization fitness test in Grasshopper/Rhino.
Top: Autodesk Revit image-model and simulated orthography.





Final thoughts and Model

In the model on the page left from here I try to explain what the current view is on Antinomy and the role of AI, architect and architecture within it.

First we need to understand that antinomy can be something spatial and visual and not an exclusively theoretical concept, but to accomplish this we need visual media and the right tools.

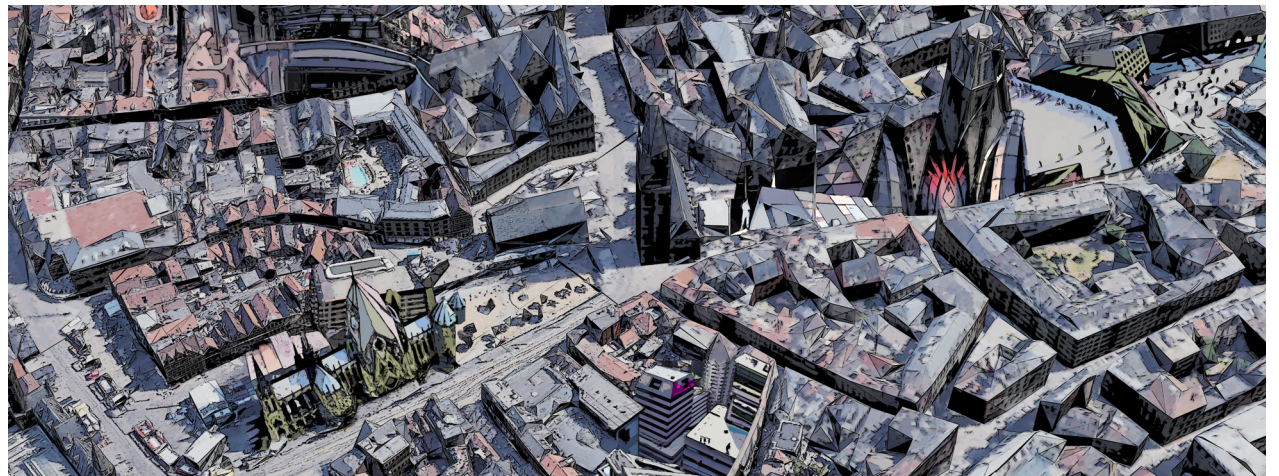
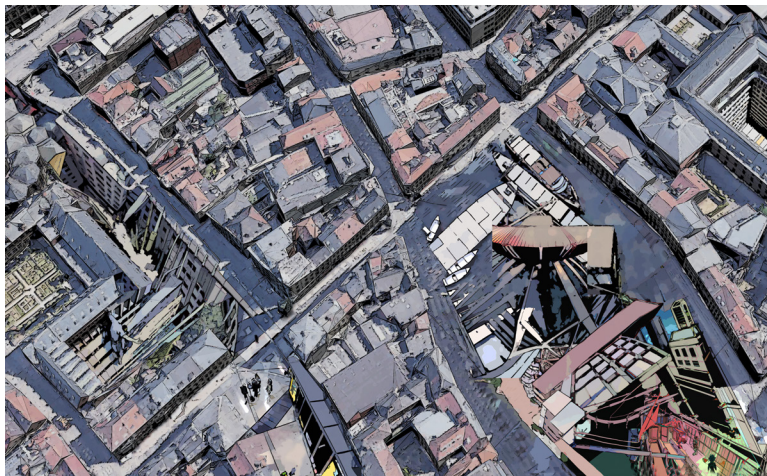
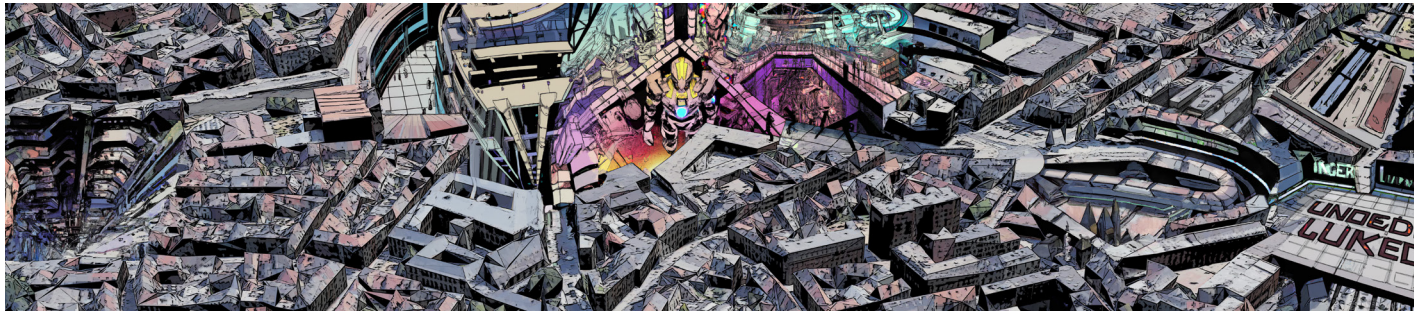
To go back to the model, we draw a clear line between two fields or two truths. On the right we have what could be called the 'Umwelt'. This umwelt is how we view the world around us from our own personal perspective. We understand this world and its built environment with our own knowledge of architecture. This is our personal imaginary landscape of reality.

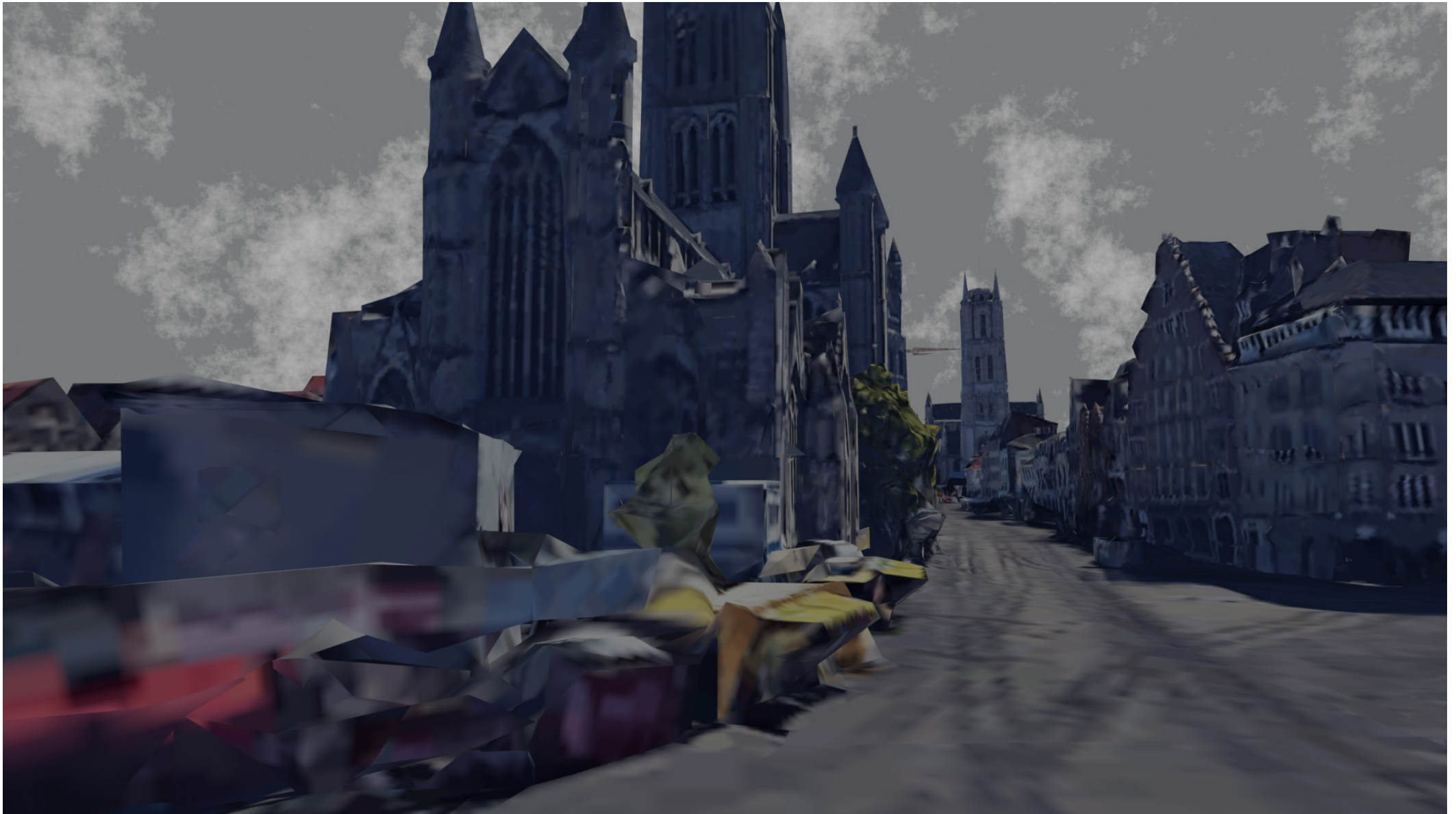
On the right we have the now new 'Digital'. Due to the times we live in, everything is already an image and is thus within the digitized world. This second truth/field is that of a large database, that contains all the information of that digitalized world. A collective subconscious that isn't personally colored but contains vast amounts more information.

So how do we get to the architecture/space within this antinomy? We define two 'tools' in each field. These tools are actors or activators within their own field. In umwelt we choose for our own person/ the architect and in the digital field we choose AI, image AI to be more specific. These two have been chosen because both possess the agency to pull from the data/knowledge of their respective fields and output visual representations of those.

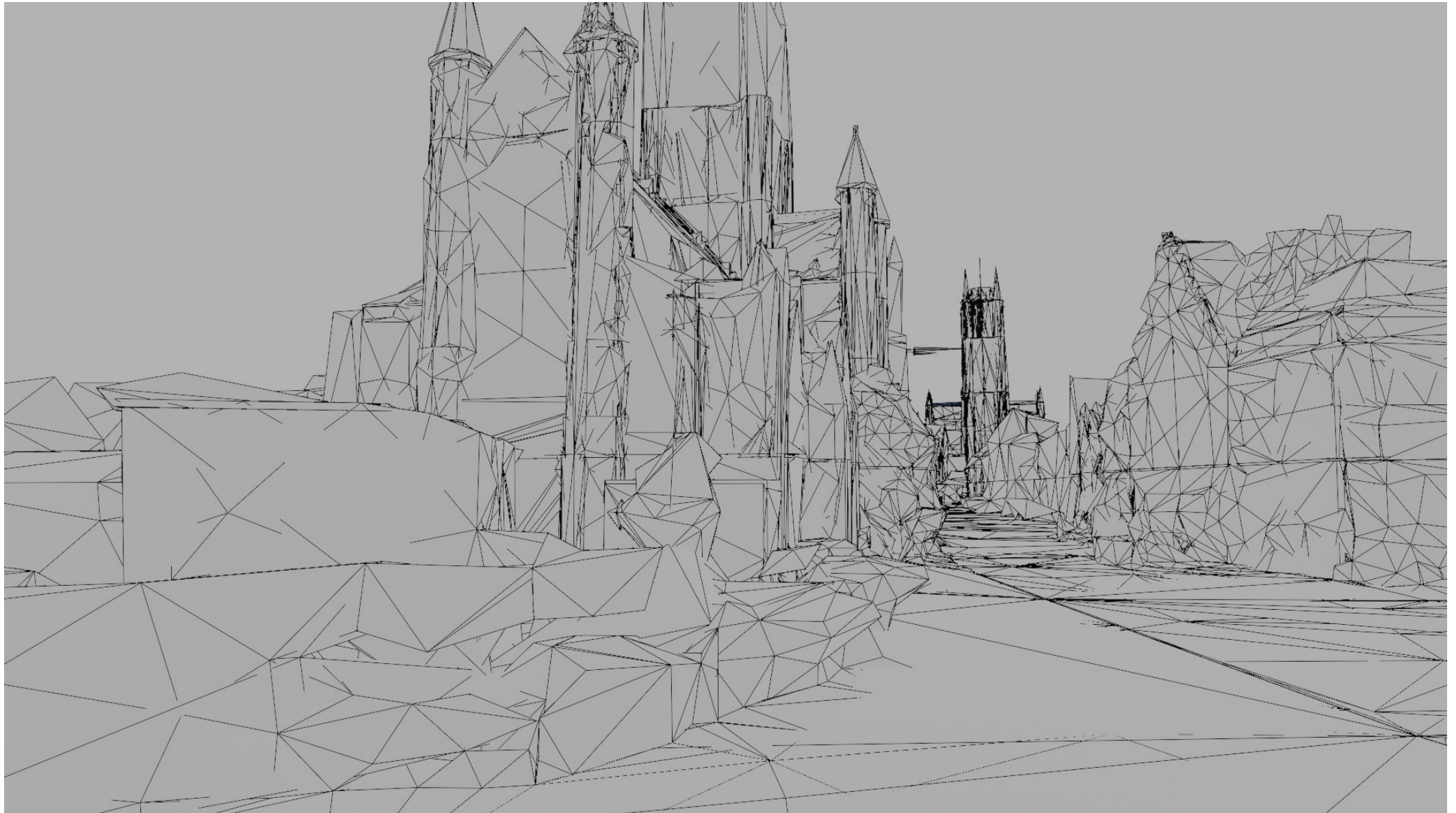
The spatial Antinomy is created because the two actors work together in a paradoxical nature. The architecture of AI lacks a certain amount of narrative and context. If you give the AI architecture done by an architect it seems to take away amounts of context and narrative and replaces it by 'other' data. Which is very peculiar, since the AI processes a seemingly endless amount of data and information, instead of adding to an architect's work it takes information away and changes the original intended architecture. This new architecture that is created we can name Antinomy. When that architecture is observed by an architect we recognize it as familiar but yet parts are not understandable.

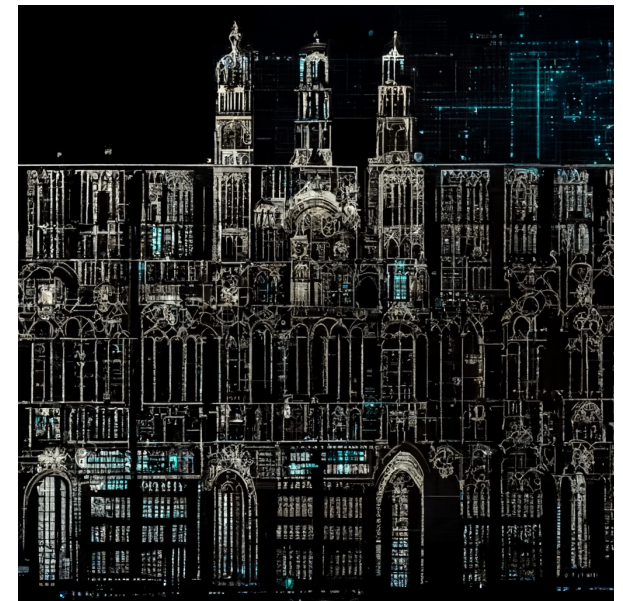
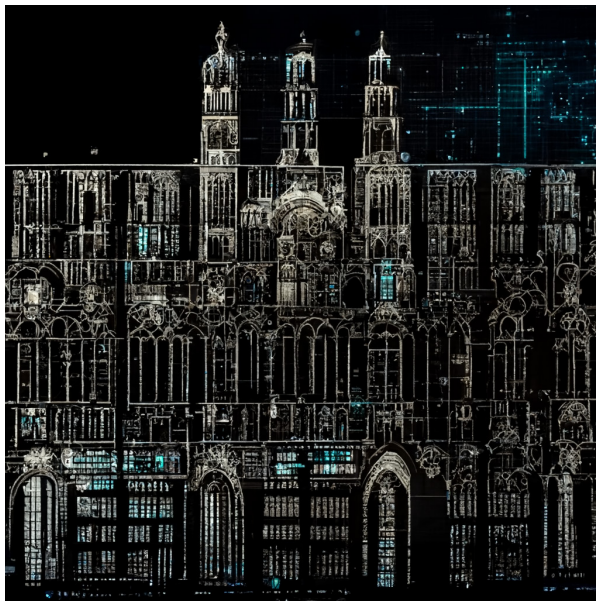




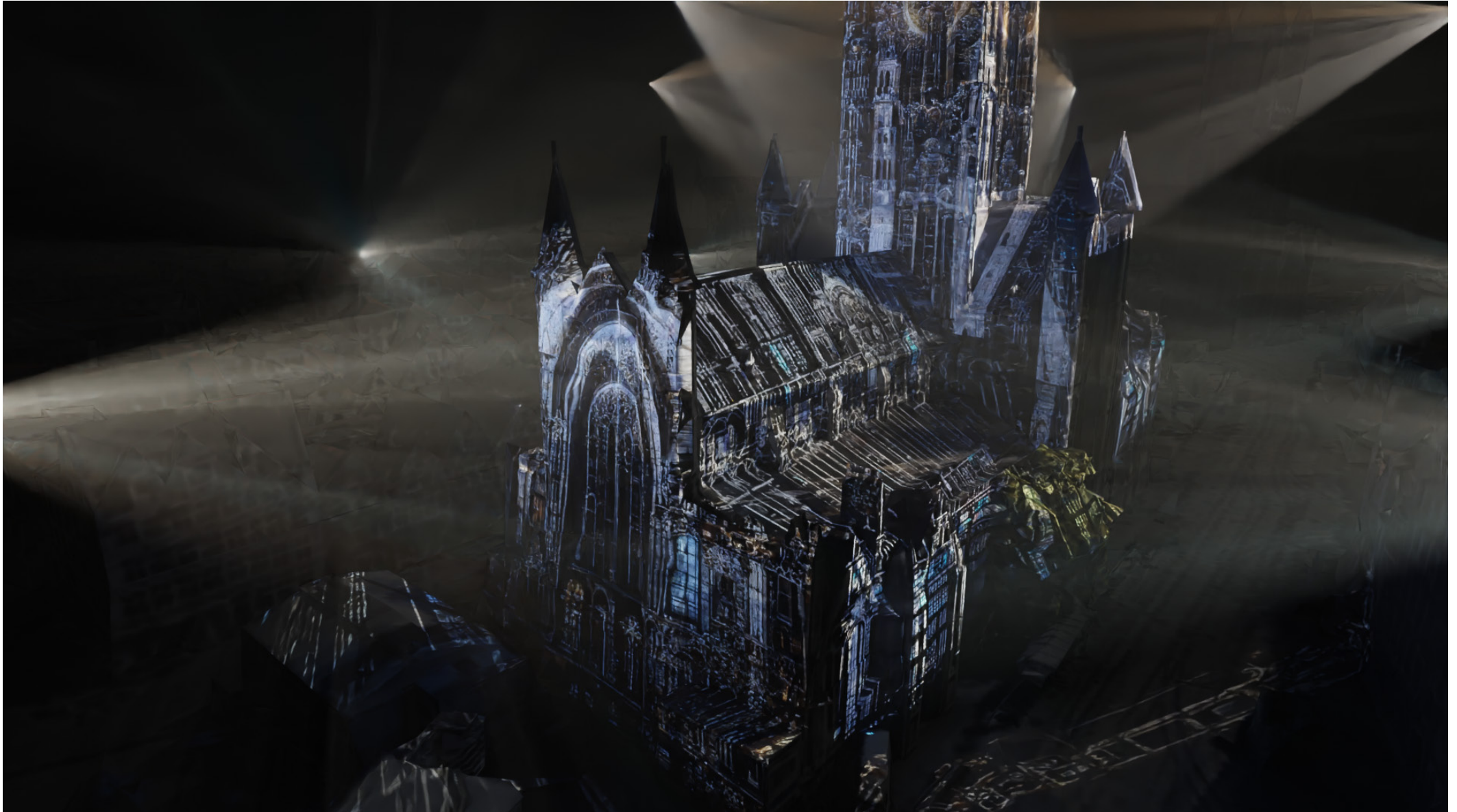


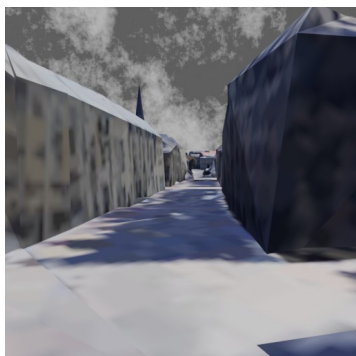
Using the model in design // video



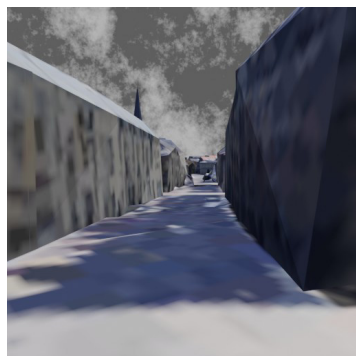


Using the model in design // video

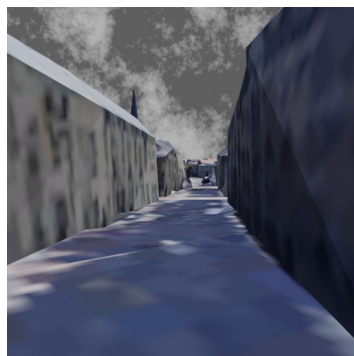




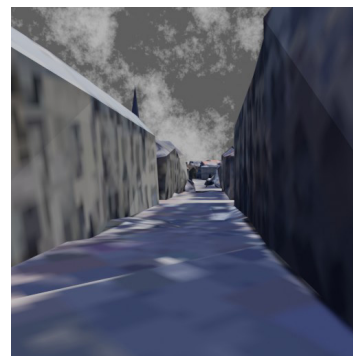
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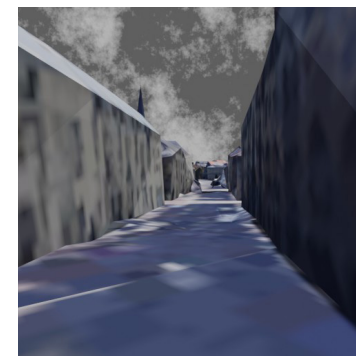
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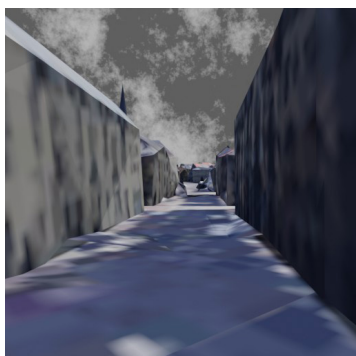
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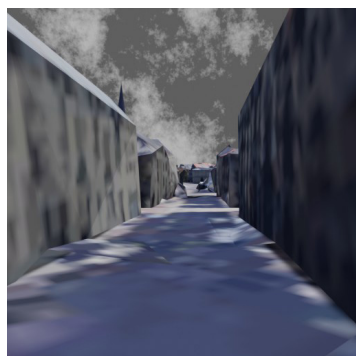
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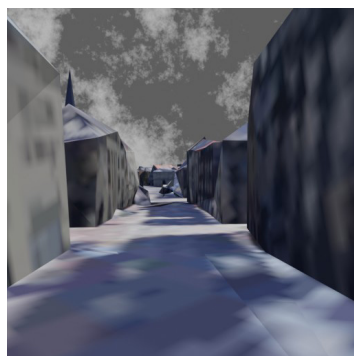
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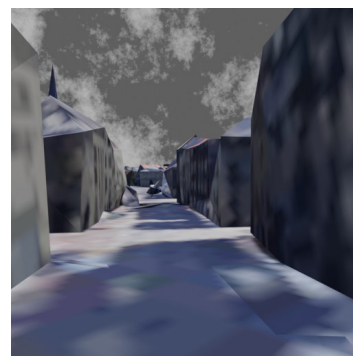
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Frame 158



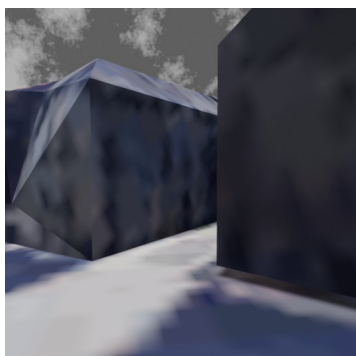
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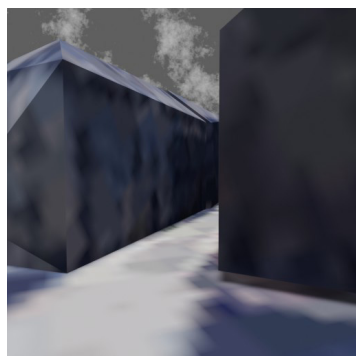
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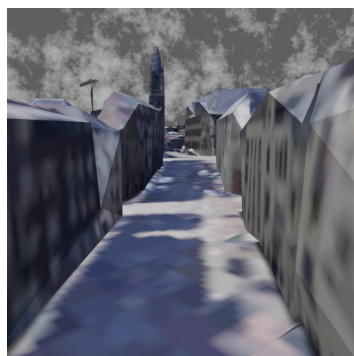
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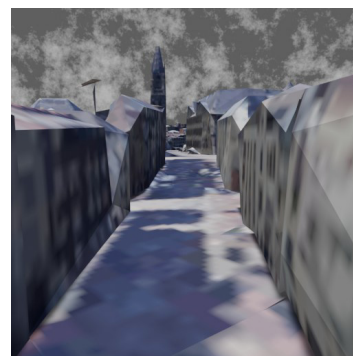
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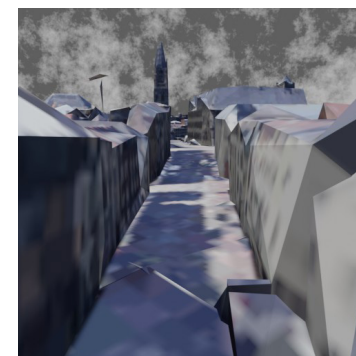
Frame 214



Frame 276



Frame 280



Frame 299

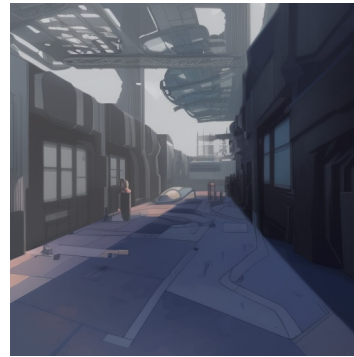
Stable Diffusion add-on in Blender



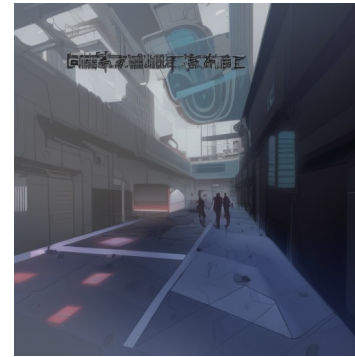
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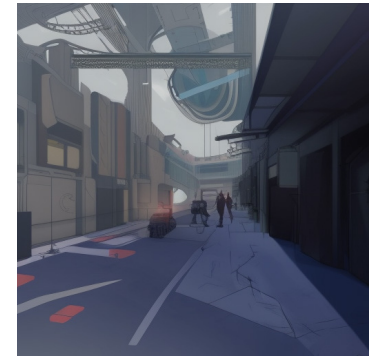
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Frame 143



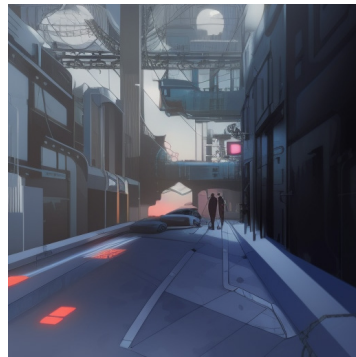
Frame 147



Frame 148



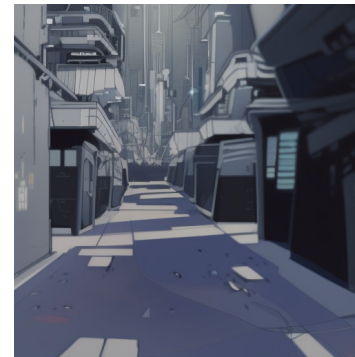
Frame 155



Frame 158



Frame 180



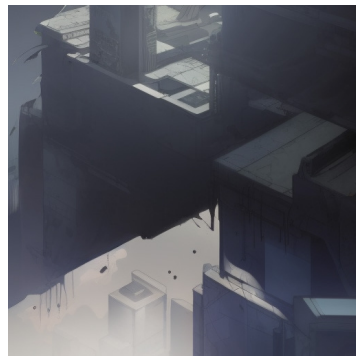
Frame 184



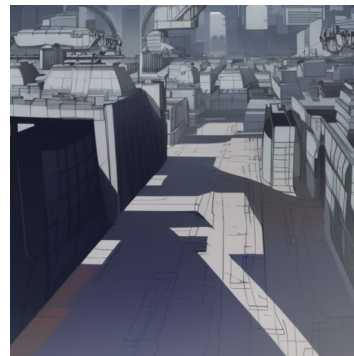
Frame 204



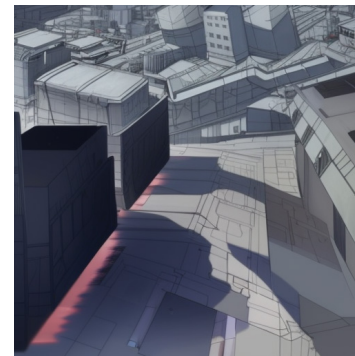
Frame 210



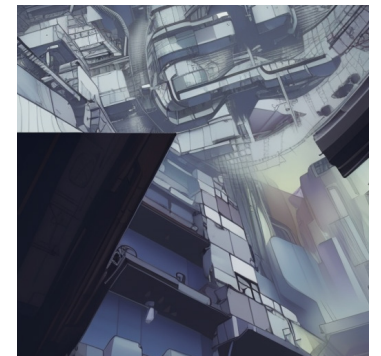
Frame 214



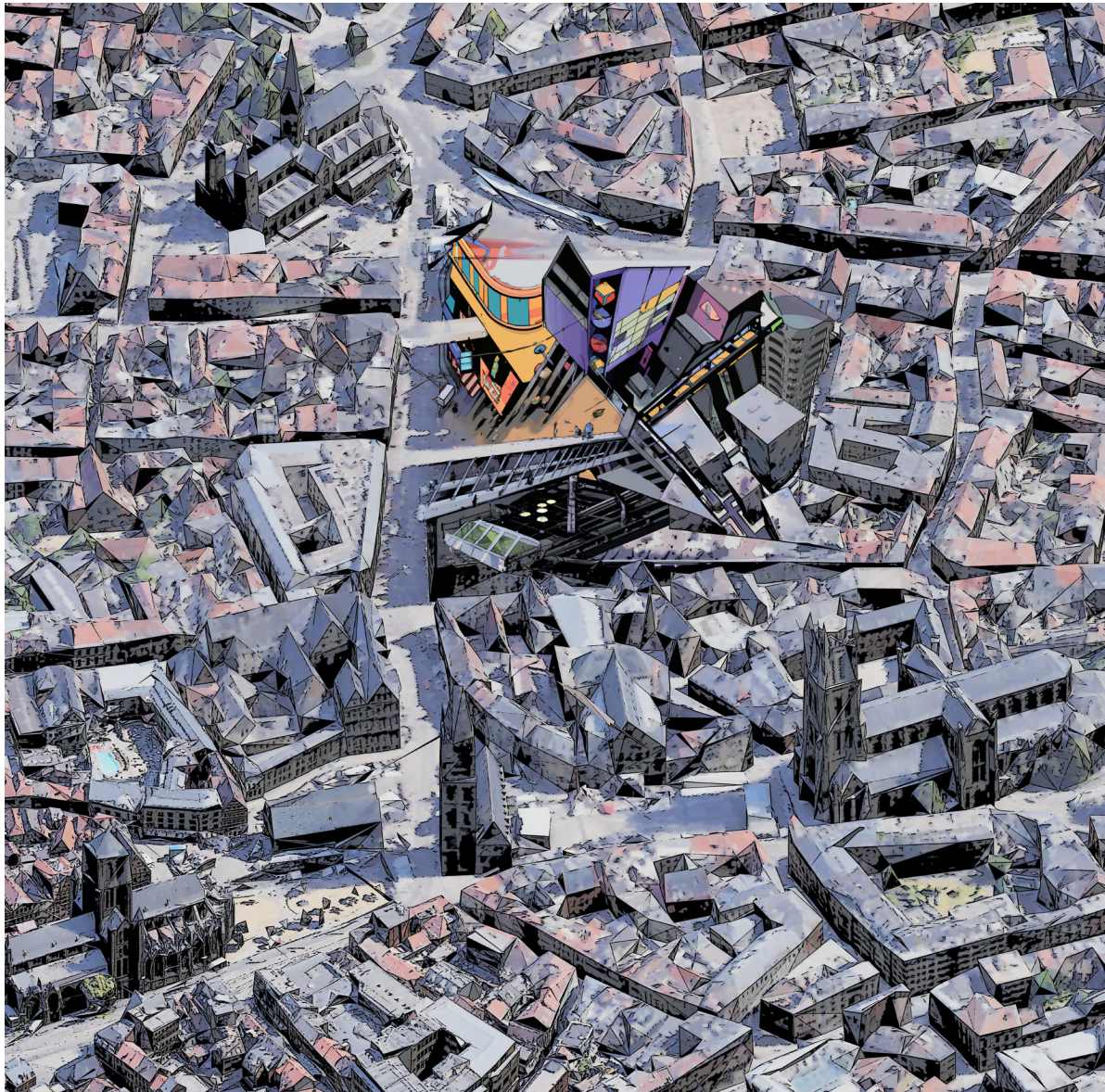
Frame 276



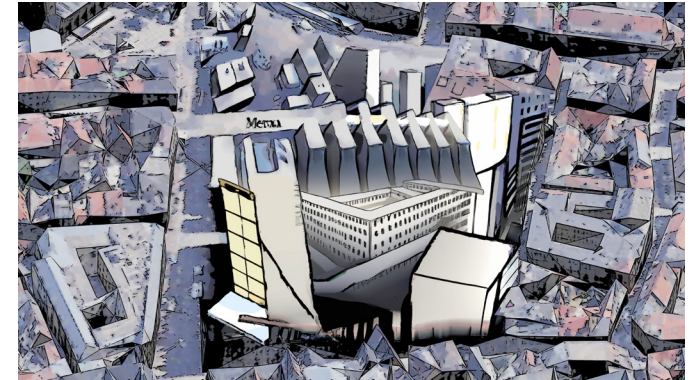
Frame 280



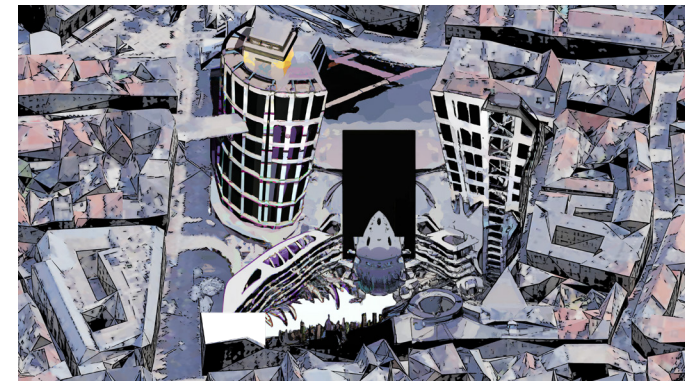
Frame 299



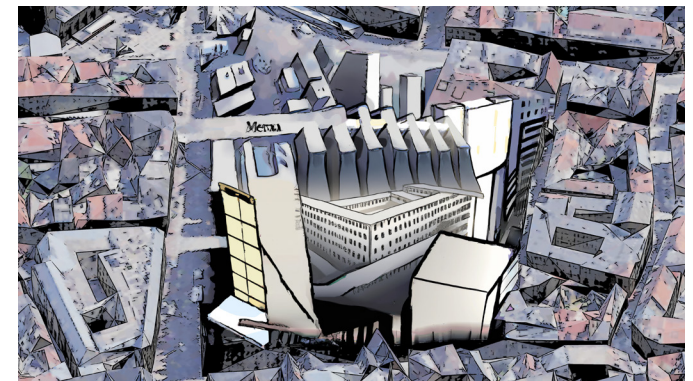
cyberpunk city, manga artstyle, complex space, antinomy, by Hiromasa Ogura



Manga city designed with basic geometry

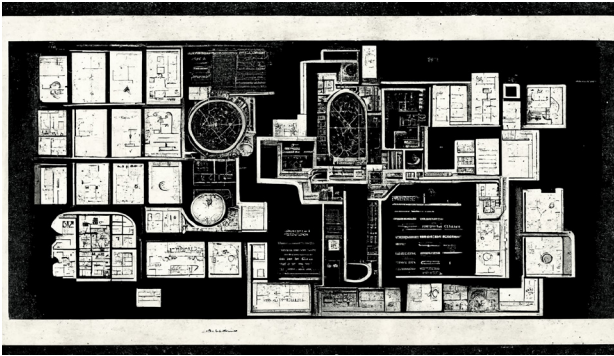


hybrid city by junji ito and h.p. lovecraft, intricate detail, highly detailed



cityscape, complex space, antinomy, downwards view, human activity, by escher

Prompting



a google maps street view of a city by h.r. giger, realistic, highly detailed, intricate details, moody atmosphere, 8k --ar 16:9 --q 2



axonometric view of a gigantic cyberpunk cathedral, at night, in the middle of a busy city on an island, anime, concept art, warped perspective, flying vehicles, assymetric, intricate detail, by Hiromasa Ogura --ar 16:9 --no curved walls --no colorful sky



a google maps street view of a city by h.r. giger, realistic, highly detailed, intricate details, moody atmosphere, 8k --ar 16:9 --q 2



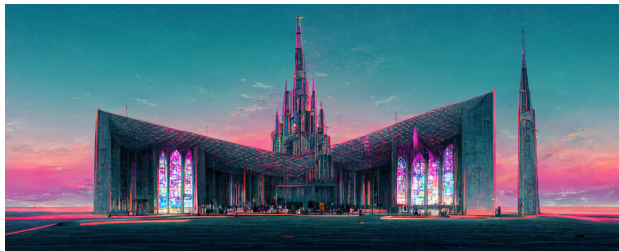
360 image of an interior room by H.P. Lovecraft and Junji Ito, 8k, intricate detail, highly detailed, curves --ar 2:1 --q 2 --video



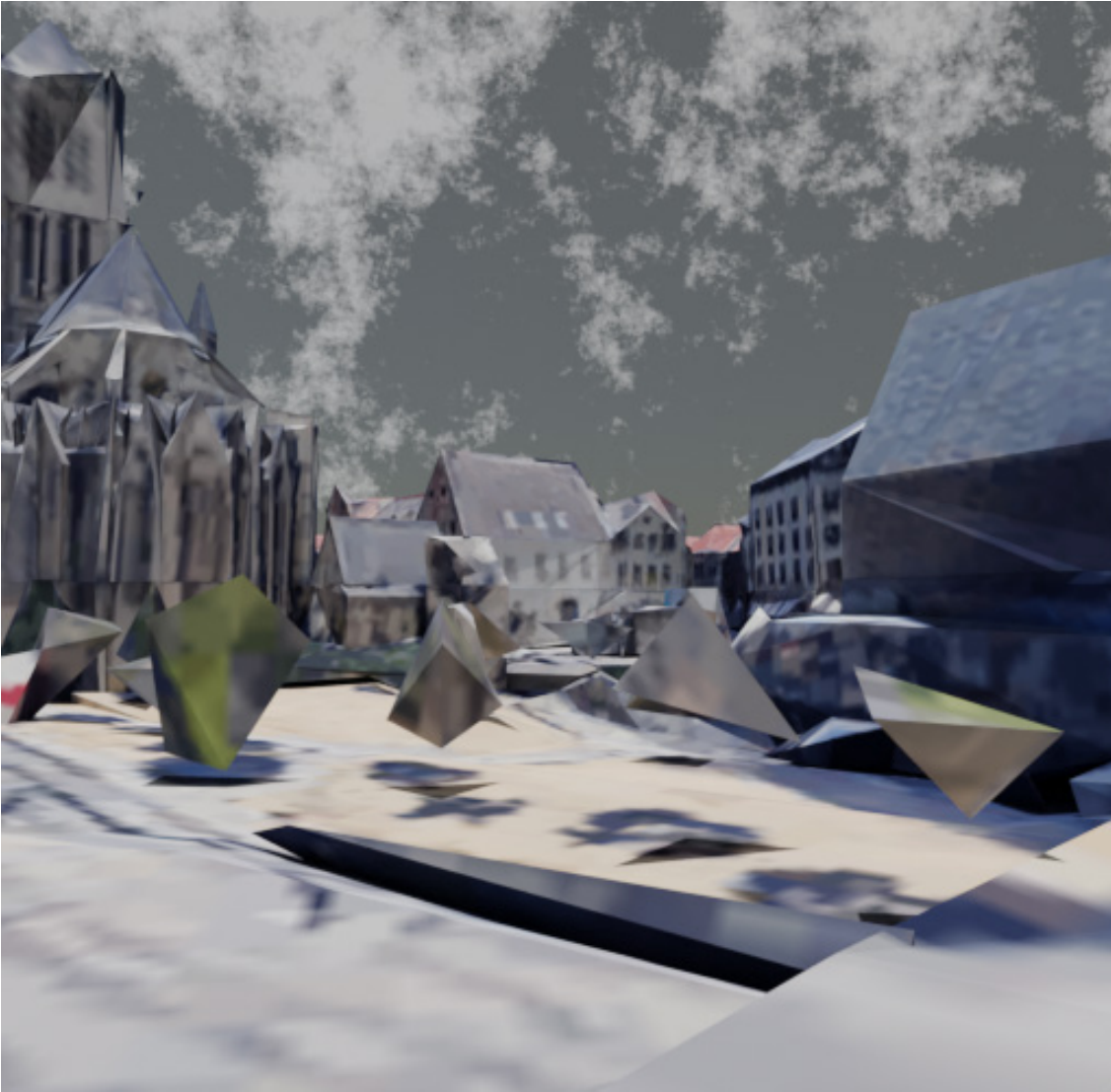
axonometric view of a city by alfred hitchcock, movie set, old film, highly detailed, realistic, film architecture, 8k --ar 16:9 --test --creative --s 5000



2d projection of the tower facade of the sint-niklaaskerk in ghent by hiromasa ogura, intricate detail, architectural, complex, digitalized, 8k --q 2 --video

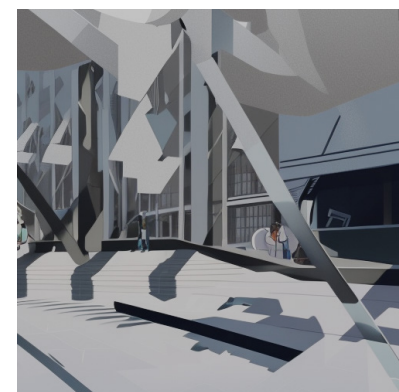
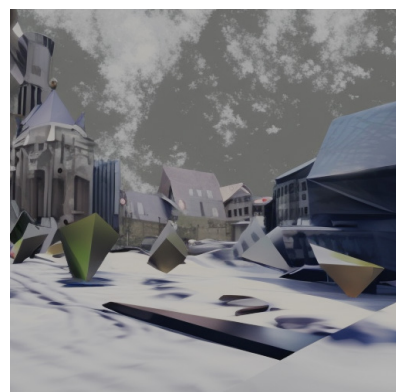
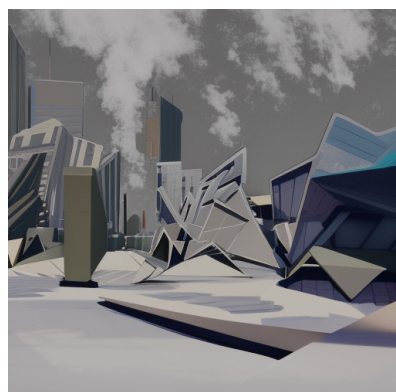
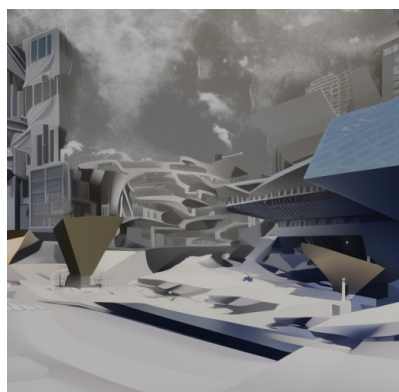
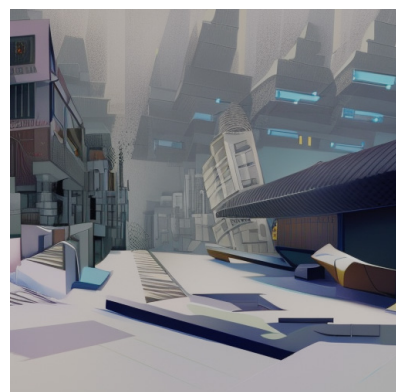
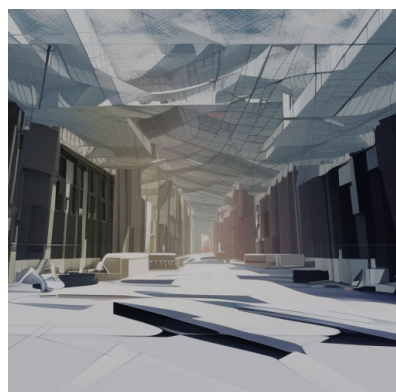
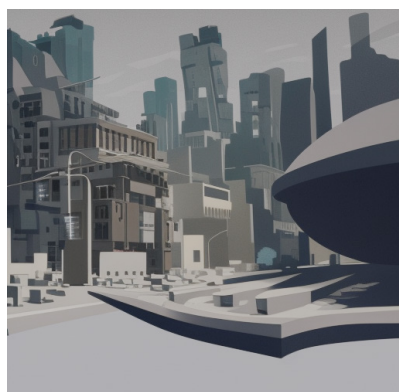
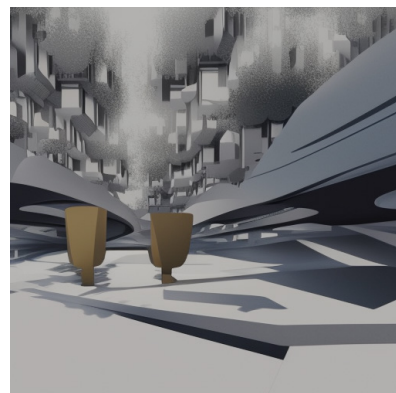
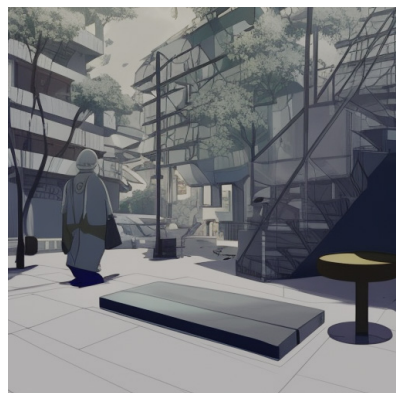
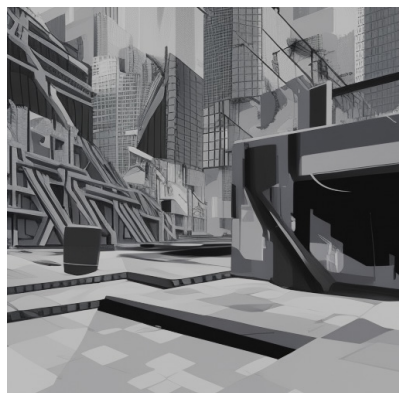


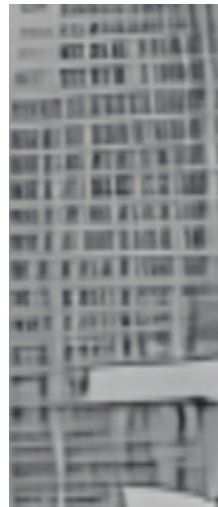
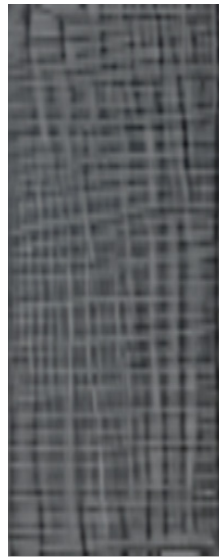
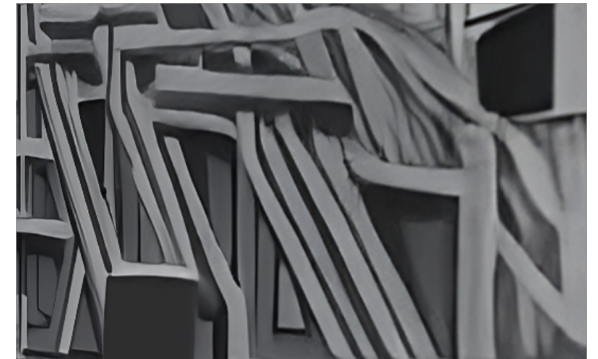
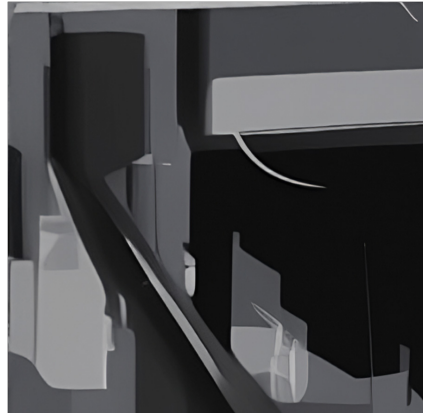
a architectural 3d section of a cathedral in a vapor-wave esthetic, sundown, manga artstyle, neon grid, highly detailed, intricate details, 8k --q 2 --ar 16:3



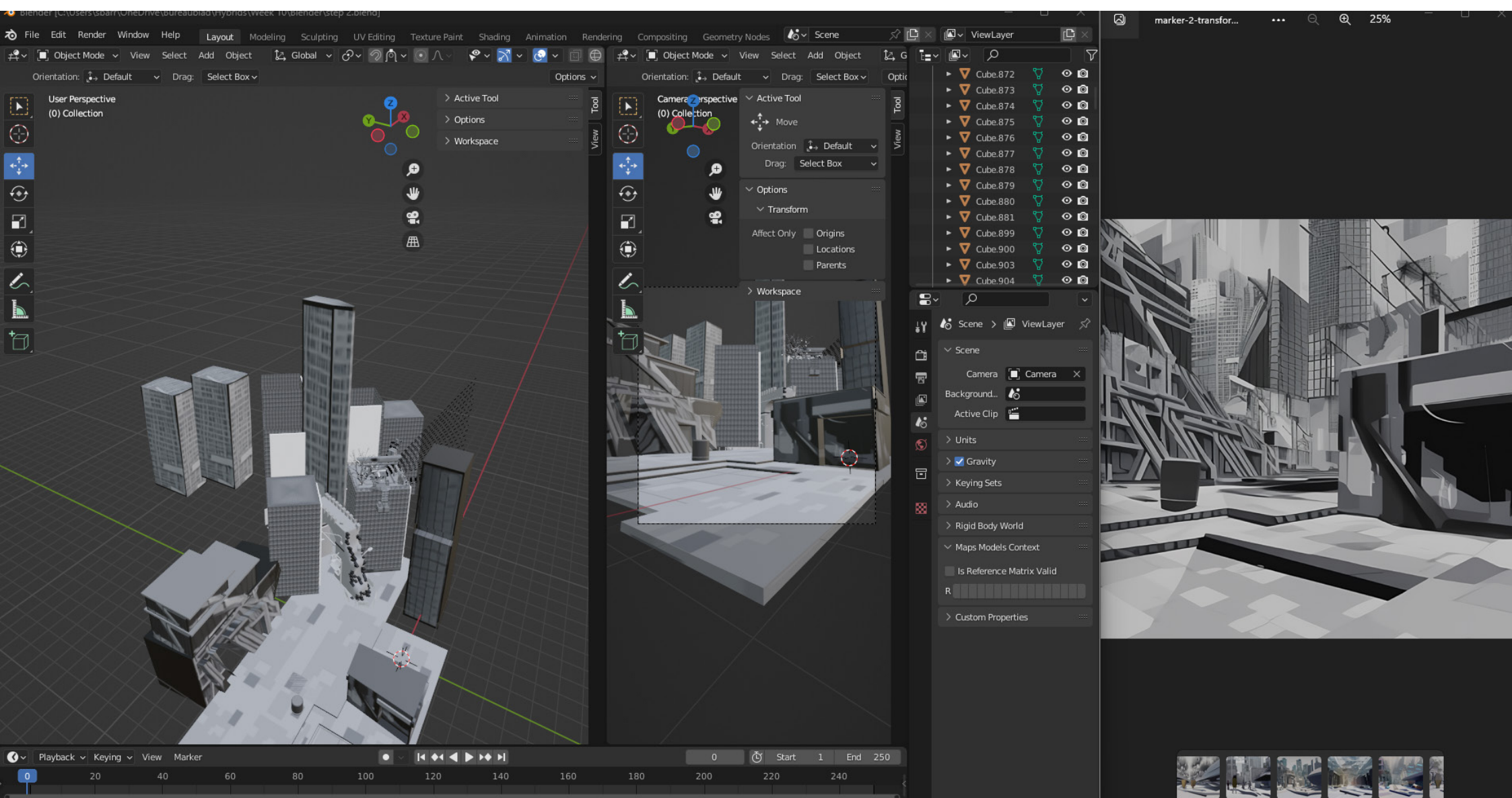
Using AI to search for the image

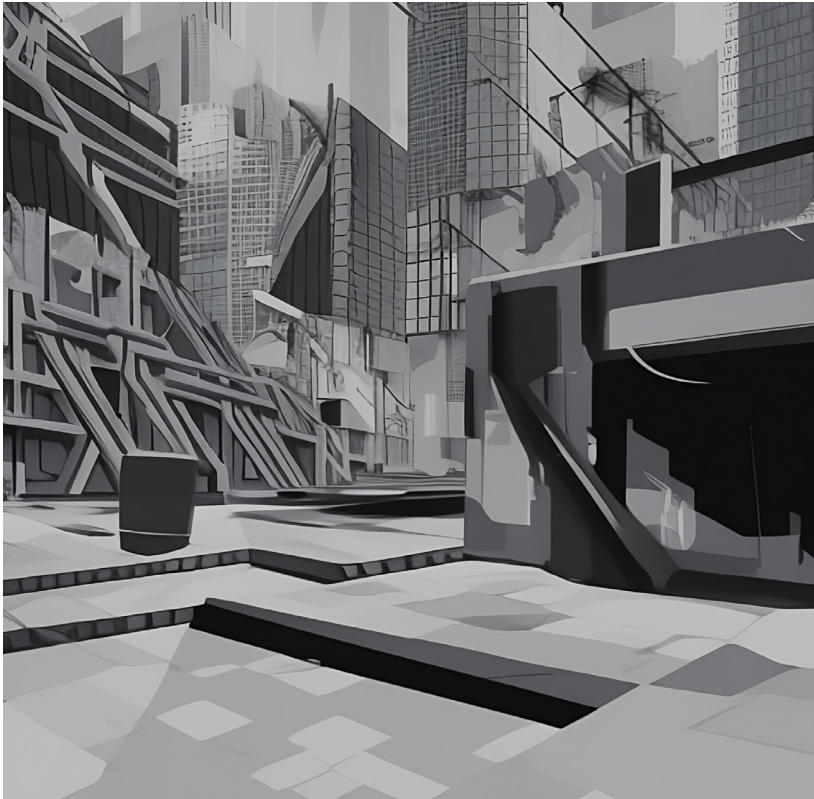
generated city, complex textures, architectural space, sharp shadows, floating architecture



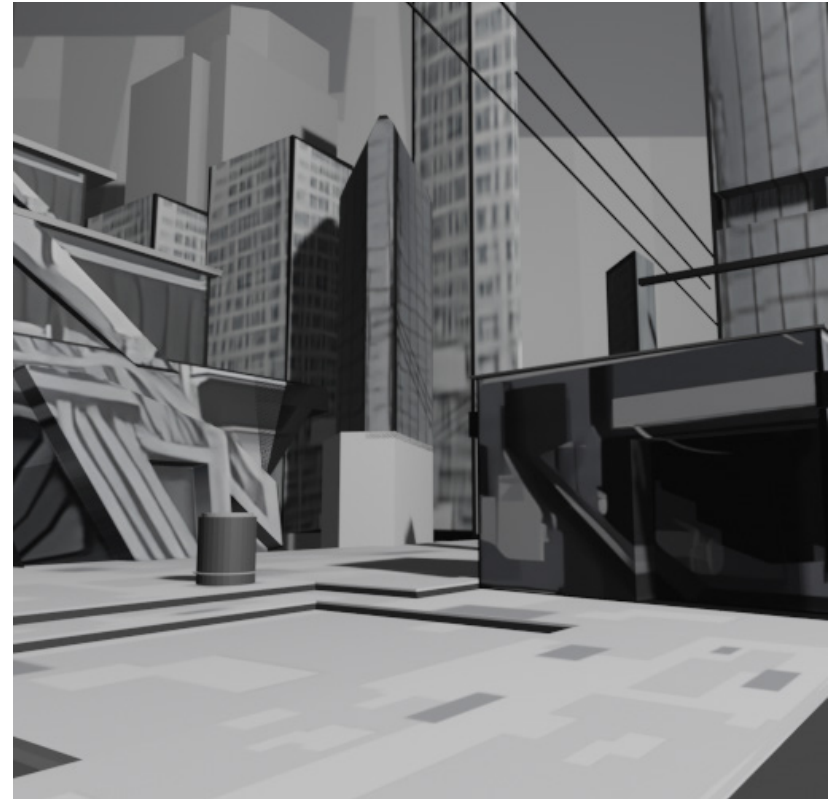


Modeling the image





AI Image



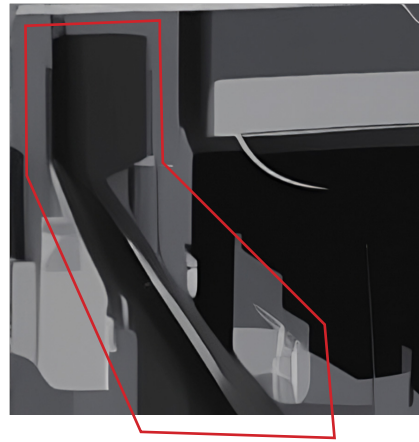
Blender model

Reflection

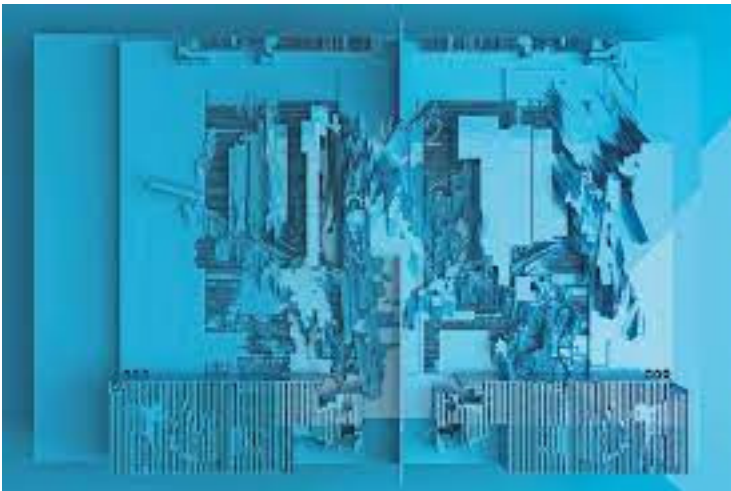
Blender has served a good job as a render and animation tool up to this point. However, now after attempting to use it as a model tool and an architectural drawing tool, I seem to still be lacking in knowledge and skill. Blender feels like a less precise drawing tool for architecture at the moment, so I am willing to make a shift to familiar tools such as Rhino. Although this doesn't mean I have to stick to only rhino and can still keep using blender for its own strengths.

The process this week did uncover a new interesting perspective on the AI generated image. To go from AI image to 3D model I had to first deconstruct to image. This deconstruction started with extracting the textures and later on implementing them in the model. Unfortunately the modeling complexity stayed in a simple form, extrusions with textures pasted onto them.

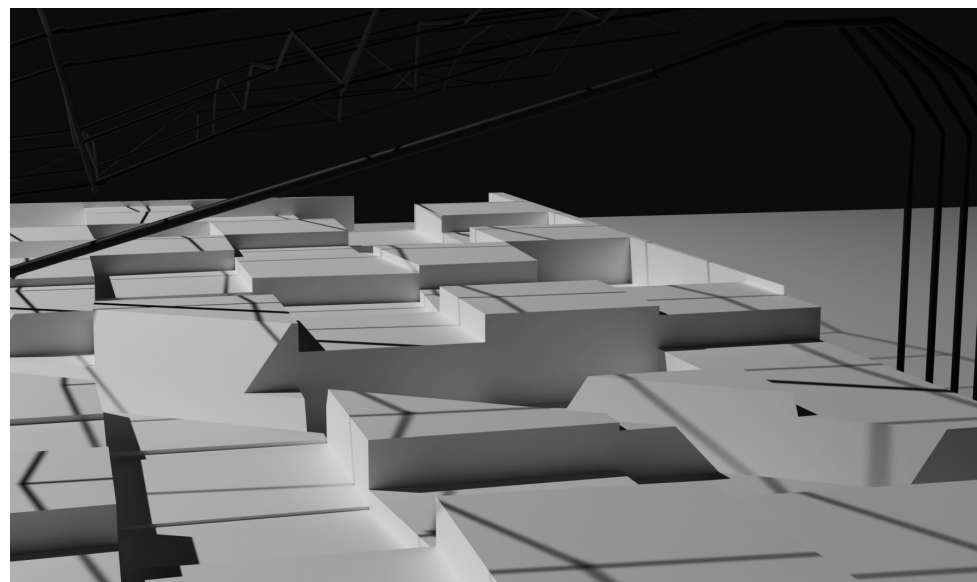
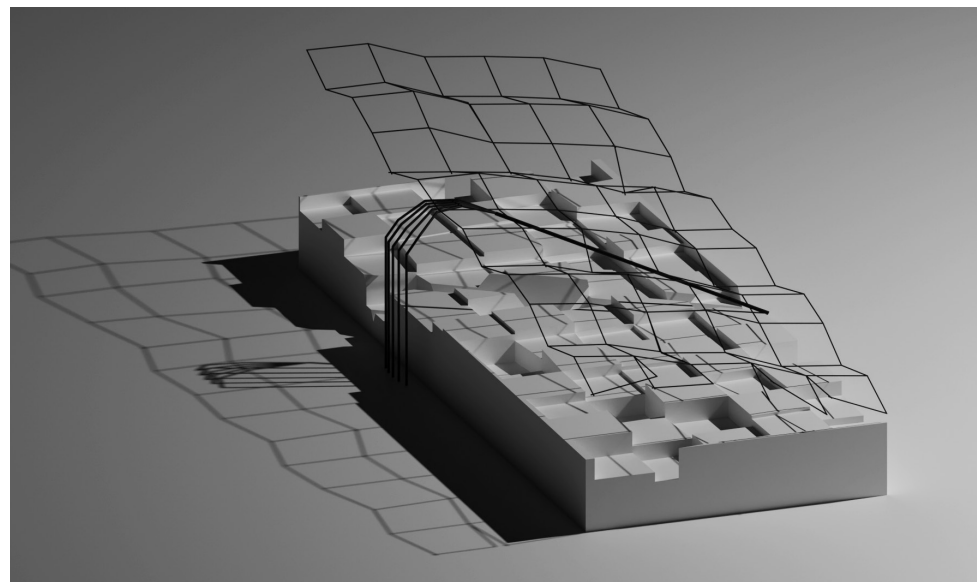
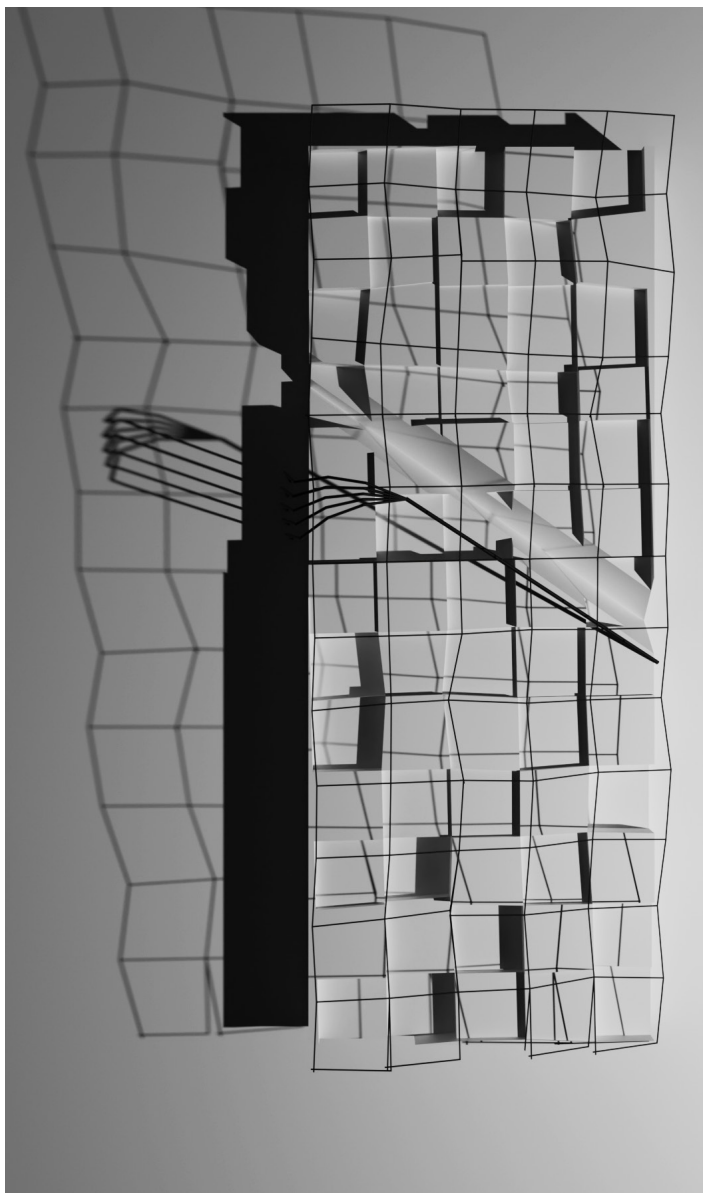
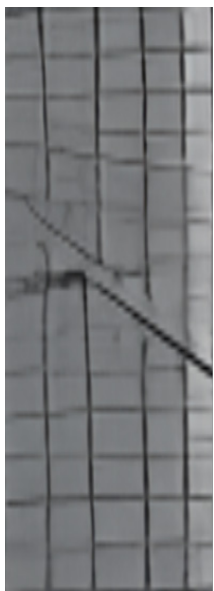
The scale of the city might also be too narrow of a starting point to use, since these have clearly defined spatial qualities and typologies that the AI as well clearly understands. After some research in prompting as well, AI would really like keywords that have to do with cityscapes and urban typologies.

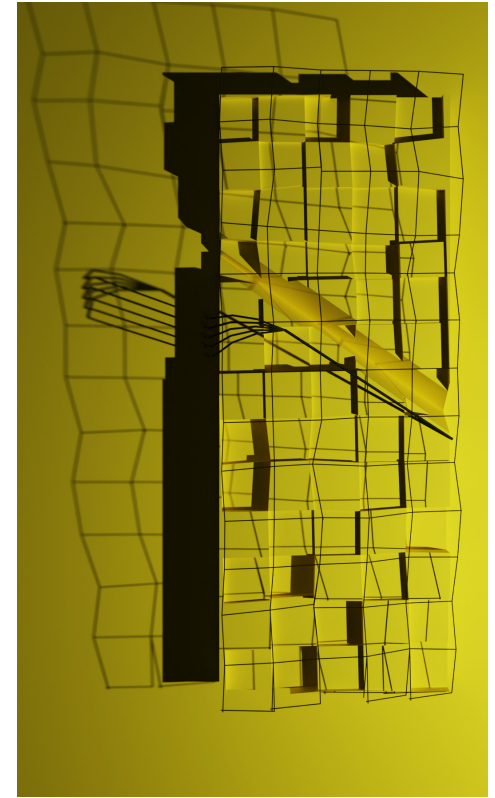
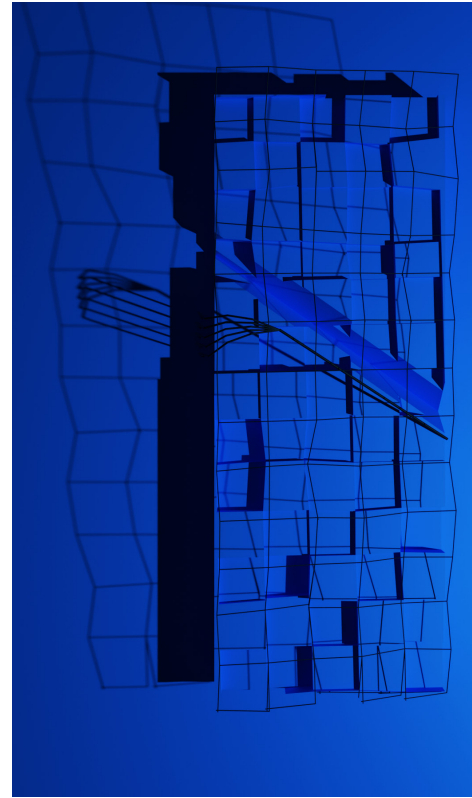
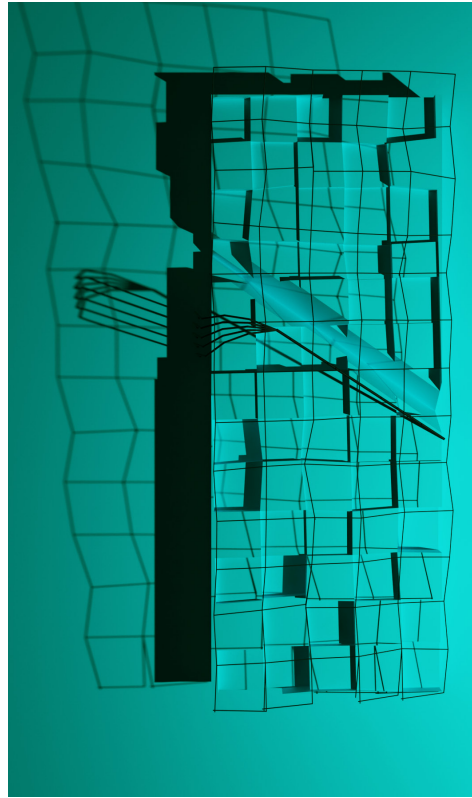


Now taking it all a step back and looking at the extracted texture, these strongly show a spatial antinomy. This antinomy comes in the form of imperfections and irregularities within these extracted textures. What was once a facade, now started showing new spatial narratives and new architectural qualities. Now taking these and remodeling them in a more familiar drawing space could be the next step to designing with antinomy. After all, now i would also be using my personal architectural senses to define a new space.

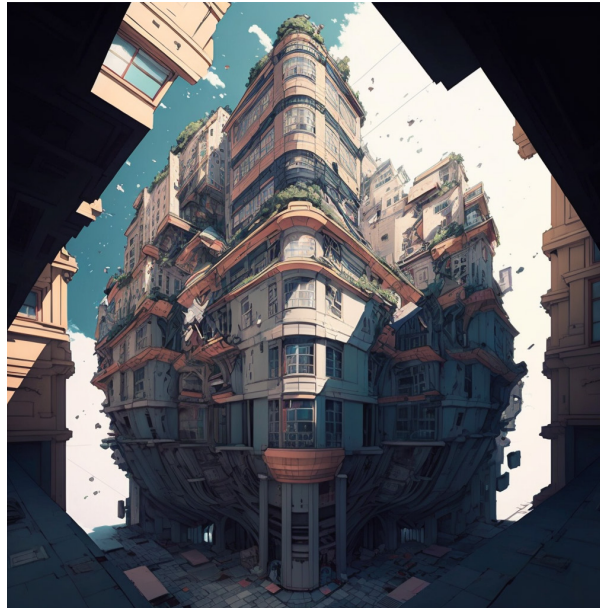


test 1





Midjourney: in search for a space



What I set out to do in the very beginning was: First, what is antinomy. Second, what is spatial antinomy? Third, how do I make antinomy? And finally, how can I design and/or draw architecture with antinomy?

Now only the final, and most challenging, part of these questions had to be answered. Tools and their interactions with AI tools have been deeply explored. Also a possible theoretical model has been explored. All that is left now is to put these to the test and draw architectural antinomy.



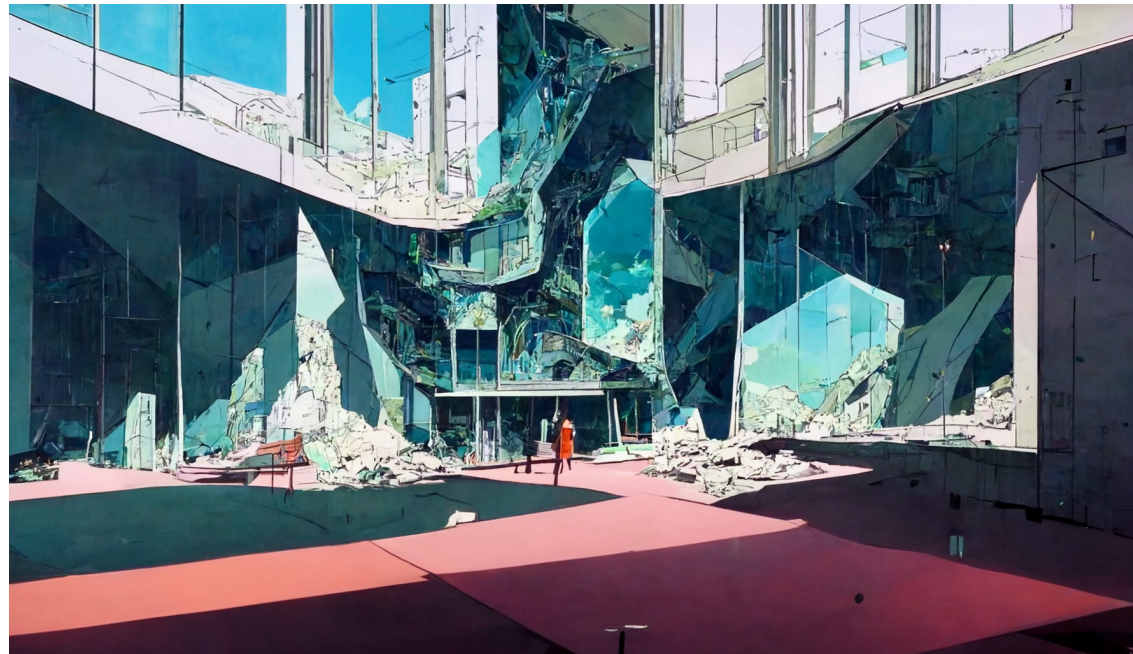
However, what do I draw? Antinomy is the short answer, but what do I specifically do to start modeling? To start out I dove back into the world of AI and prompting. Thanks to previous research I now had a better feeling of what to use in the prompts. It was always a challenge to find the perfect image, since too specific prompts would give generic architecture results, but too vague would give generic Midjourney images.

These following pages are a selection of potential images that were generated.

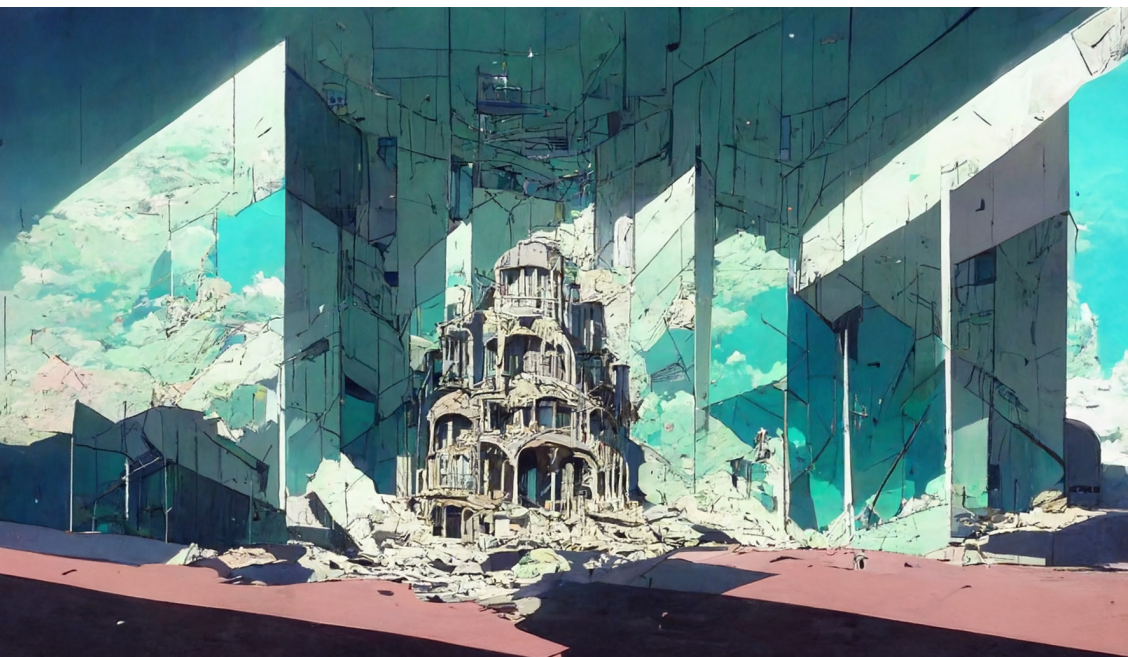
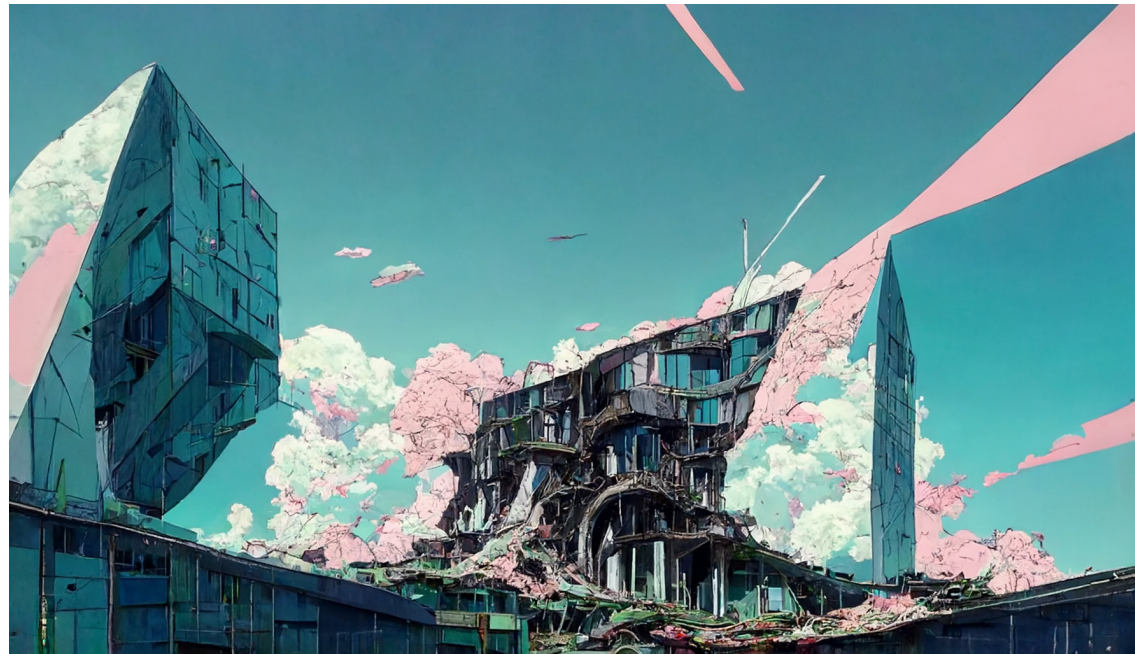
Week 11

Midjourney: in search for a space

After prompting and re-prompting, making variations and remixes I had loosely found interesting prompts to start working around. These being: "nonsensical architectural space, interior space anime artstyle, bad diffusion, intricate details, architectural typologies mixed together, shattered space, bad perspective" and variants thereof.

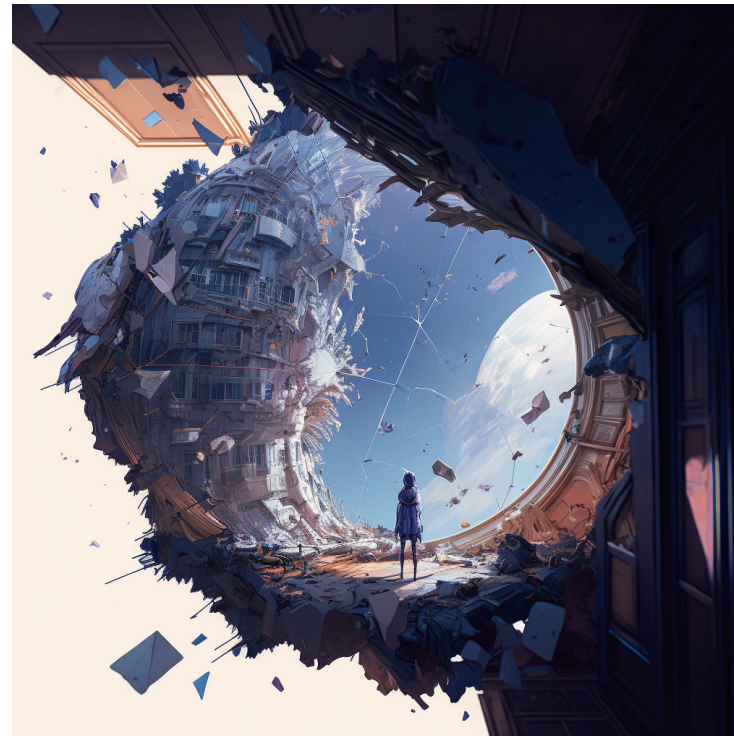


Midjourney: in search for a space

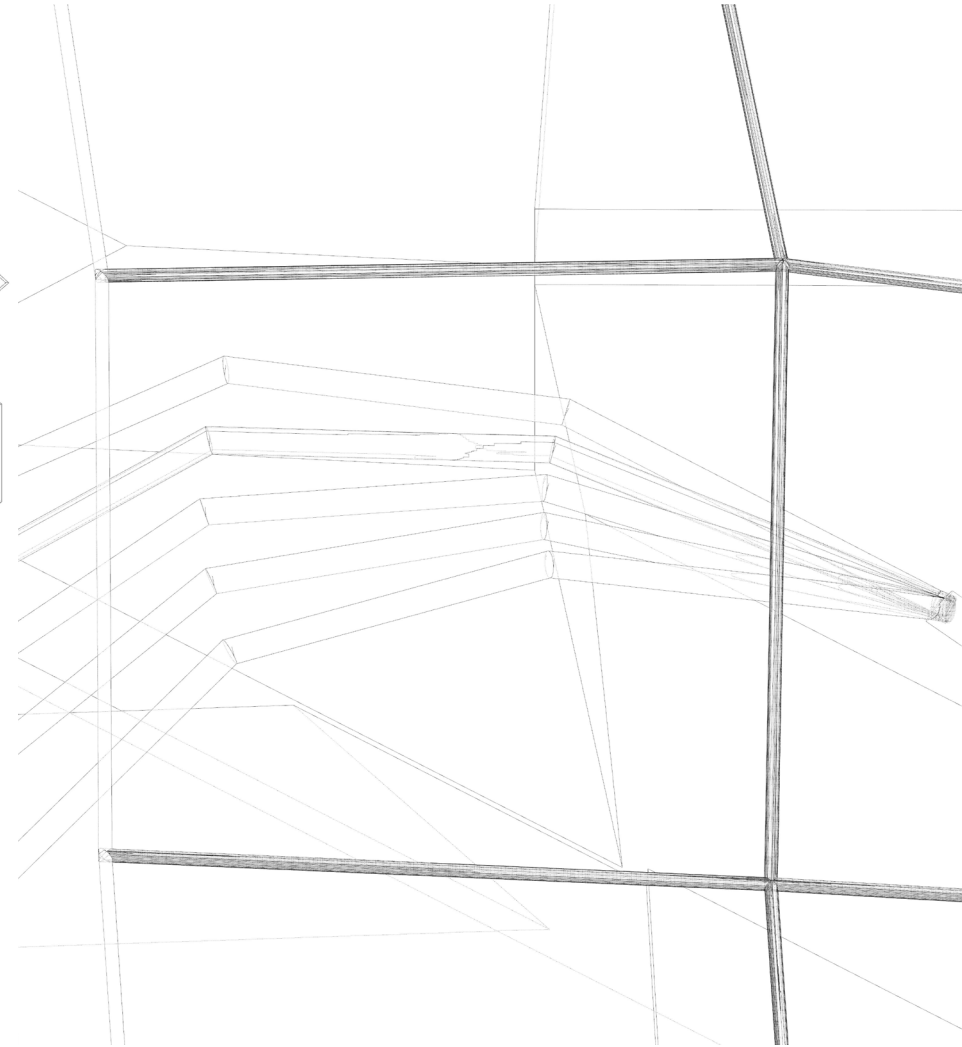
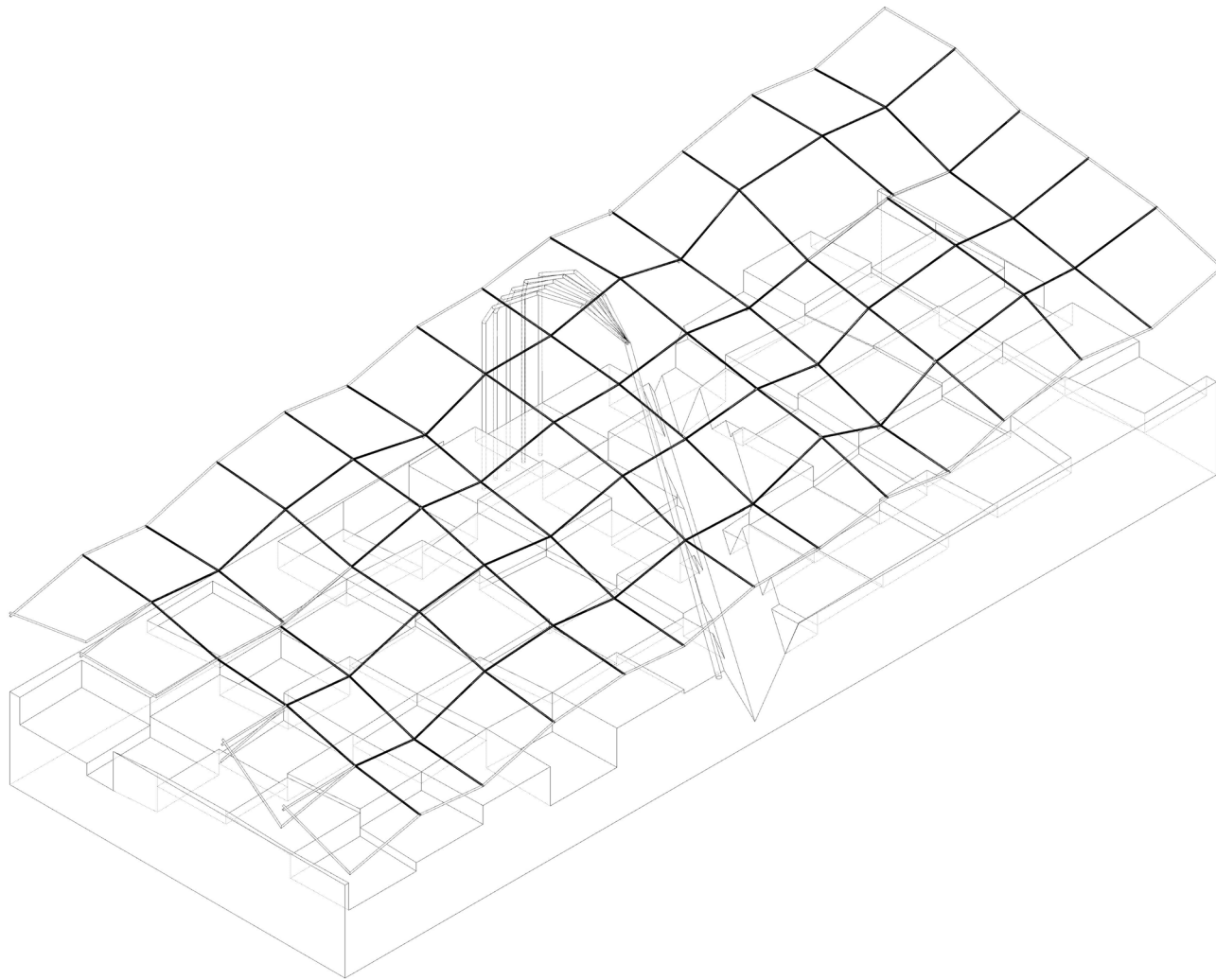




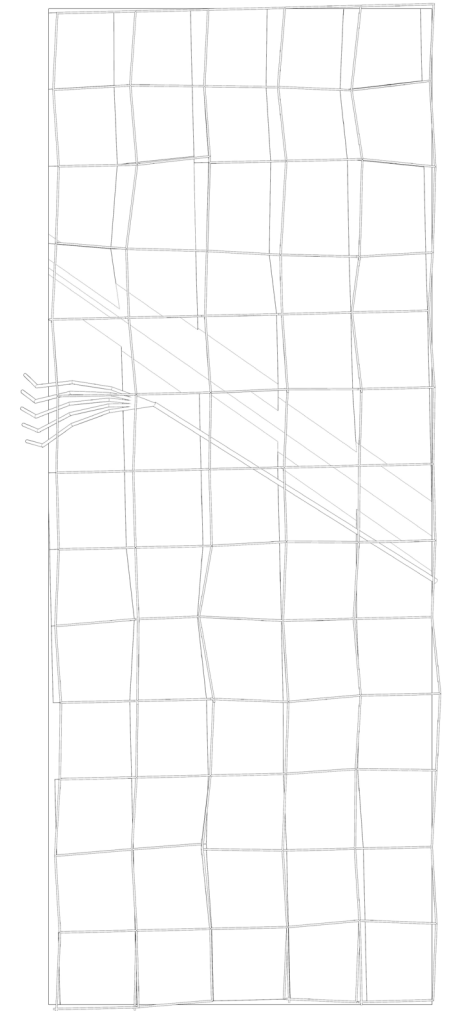
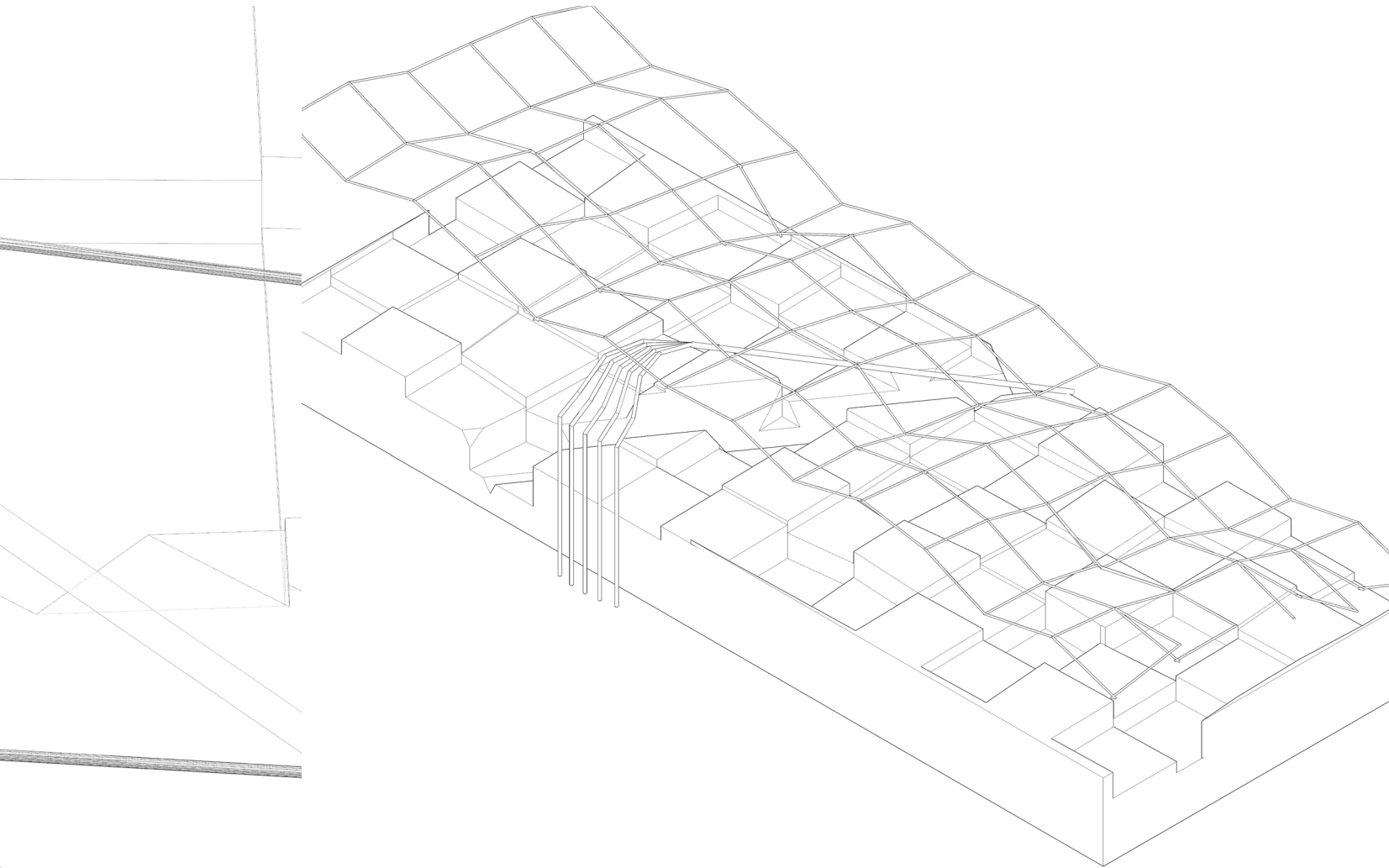
Midjourney: in search for a space

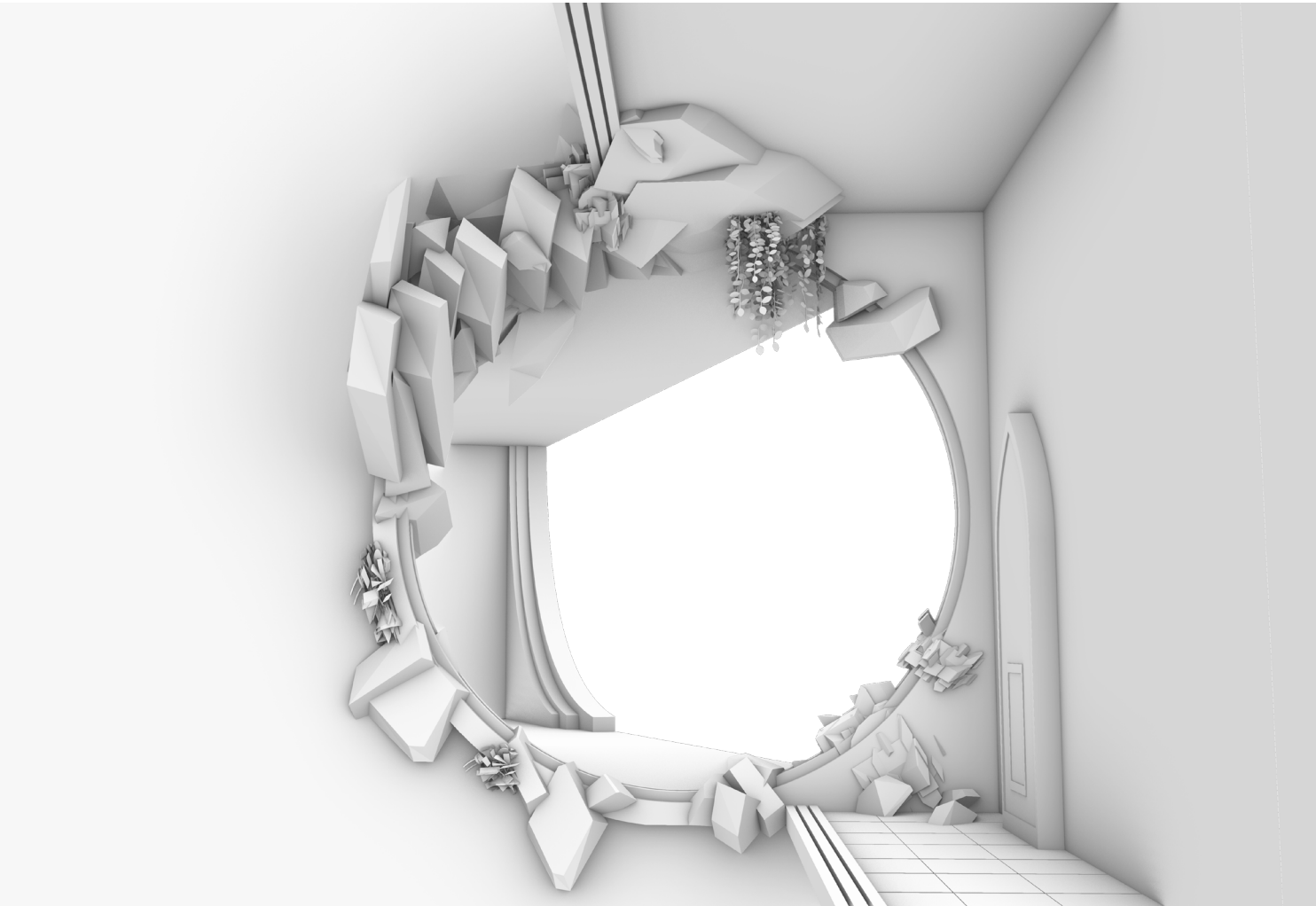


Now after generating a vast amount of Images, things were becoming more complex again, But an interesting idea also came to me. I kept thinking back to previous week where i didn' feel like I was designing anymore or even not in control anymore. These images as a starting point would best serve as inspirational pieces to provoke the actual design that will be happening in the 3D environments of architectural drawing programs. But i can also use parts of these programs to my advantage. Such as generating plans or technical drawings of these AI spaces. Could it be antinomy can be found within a more technical setting?

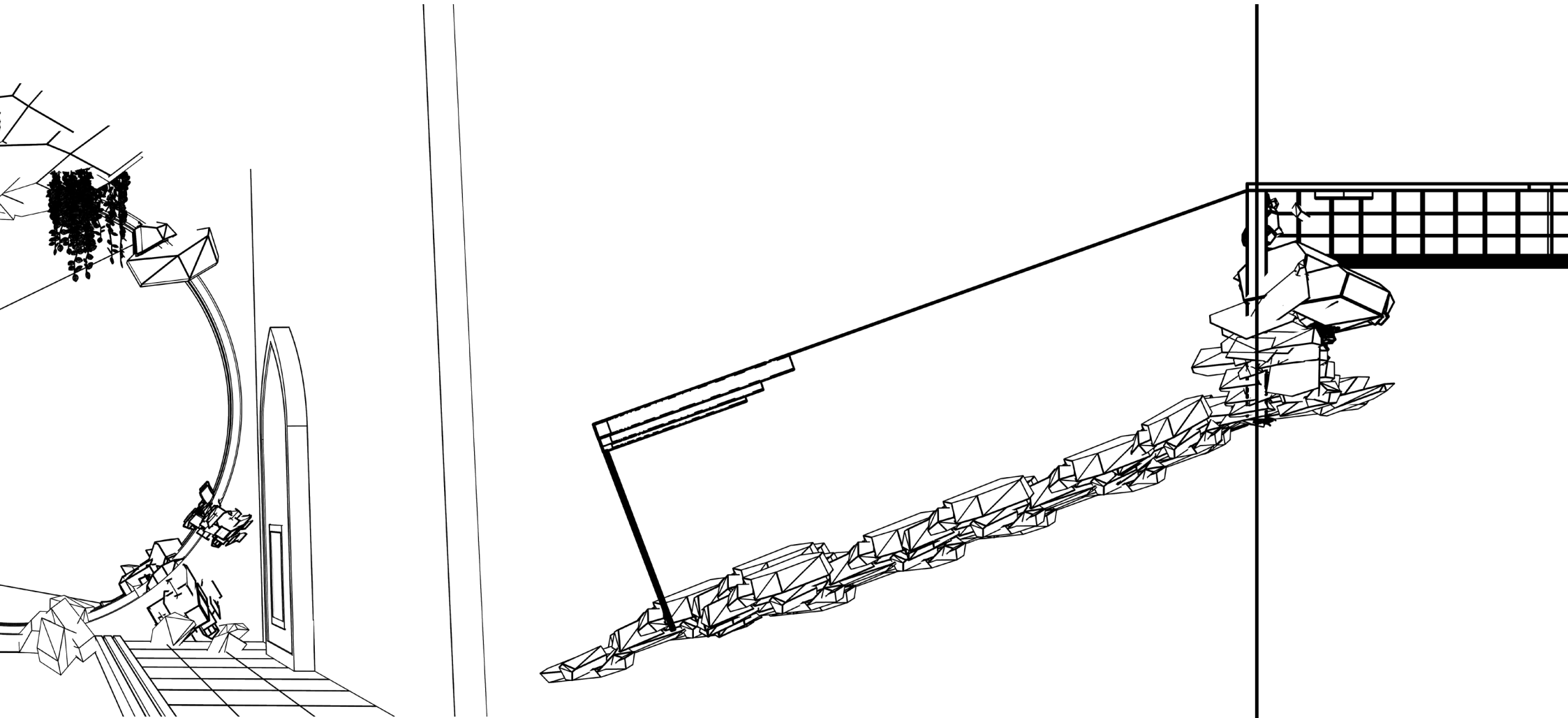


Midjourney: in search for a space

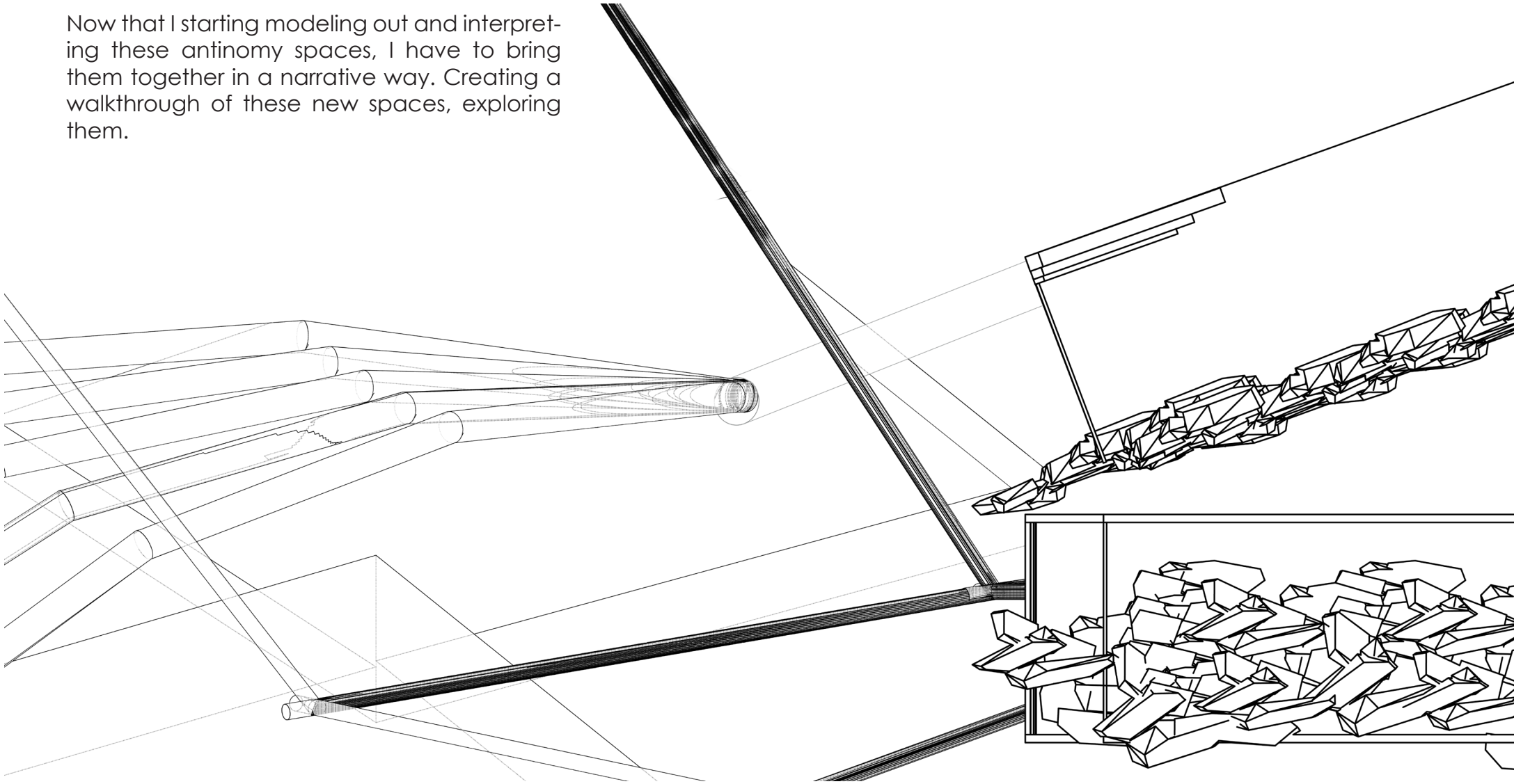




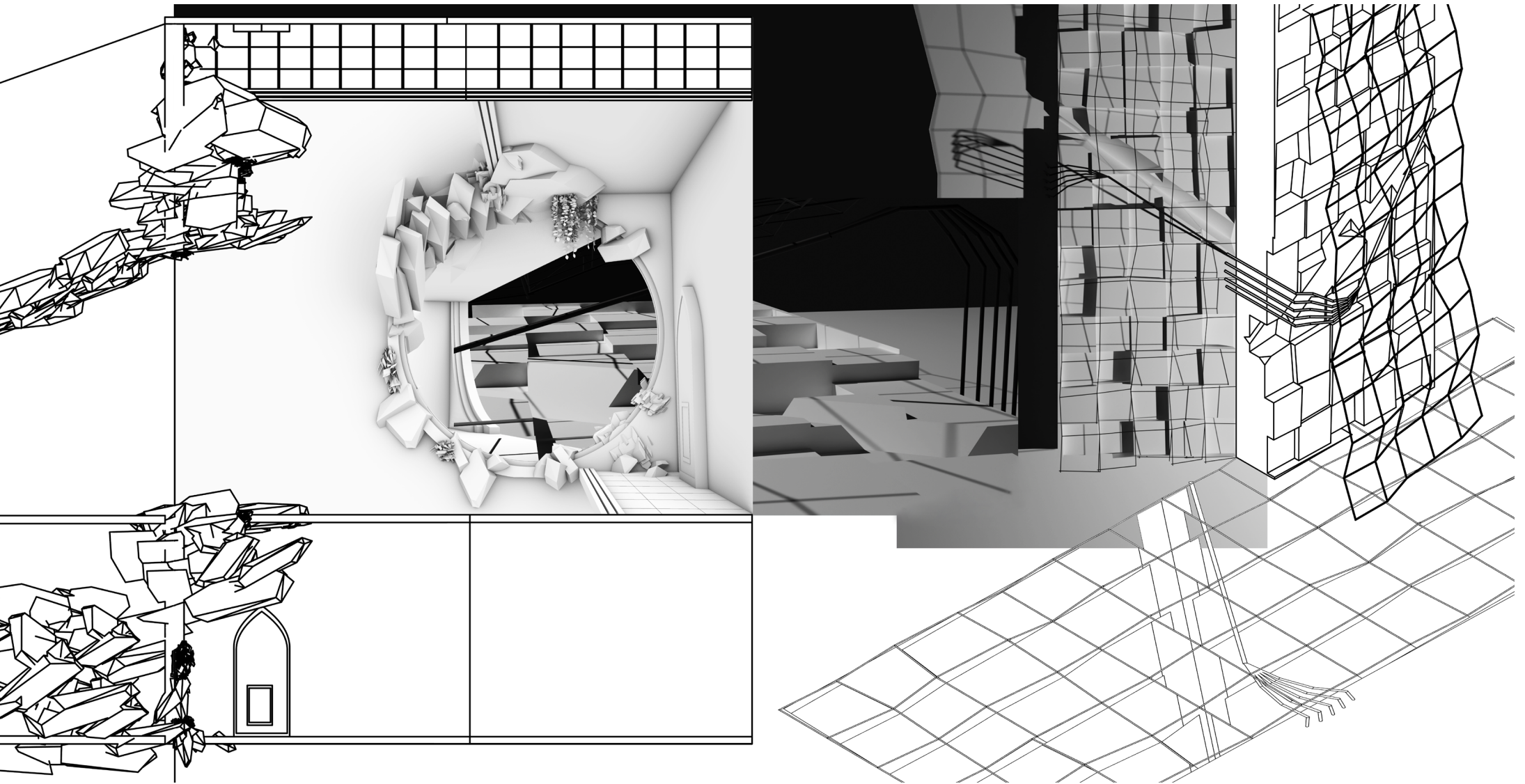
Midjourney: in search for a space

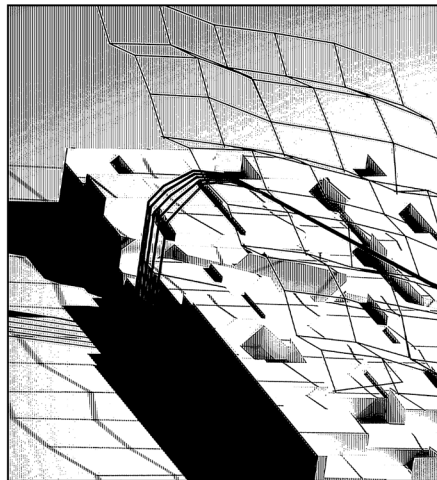
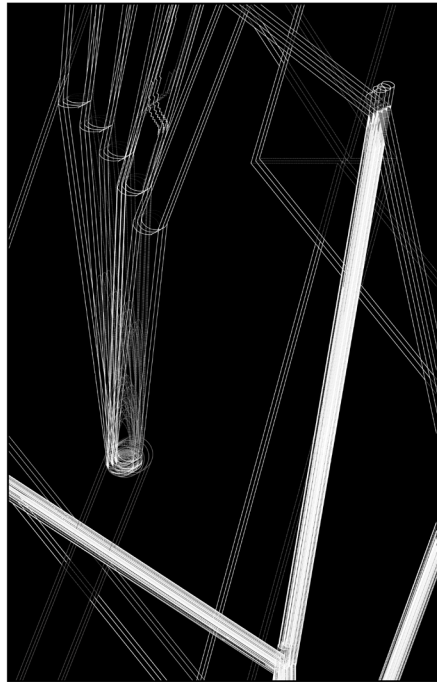
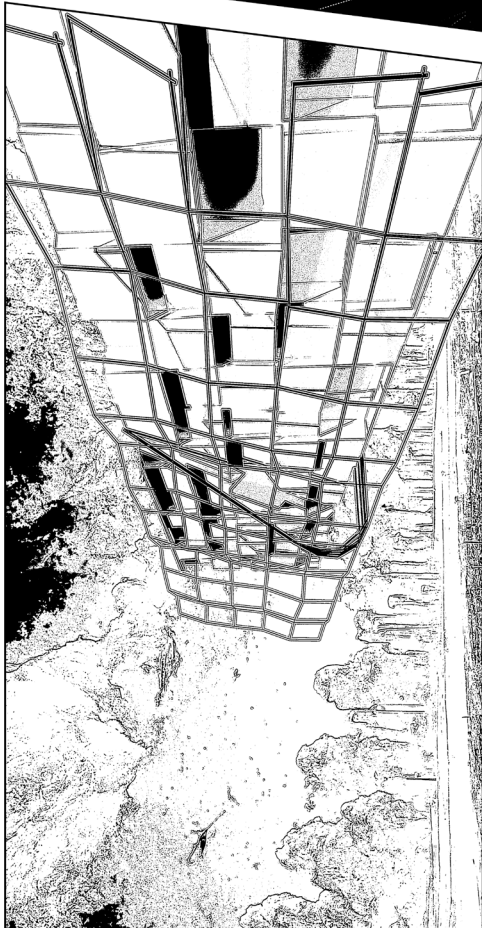
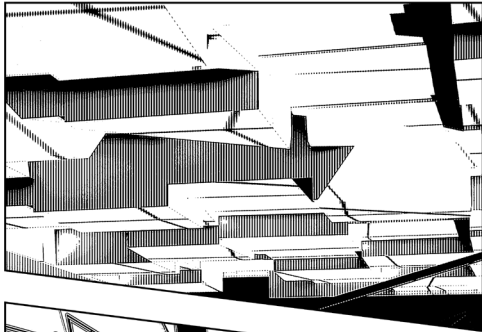


Now that I starting modeling out and interpreting these antinomy spaces, I have to bring them together in a narrative way. Creating a walkthrough of these new spaces, exploring them.

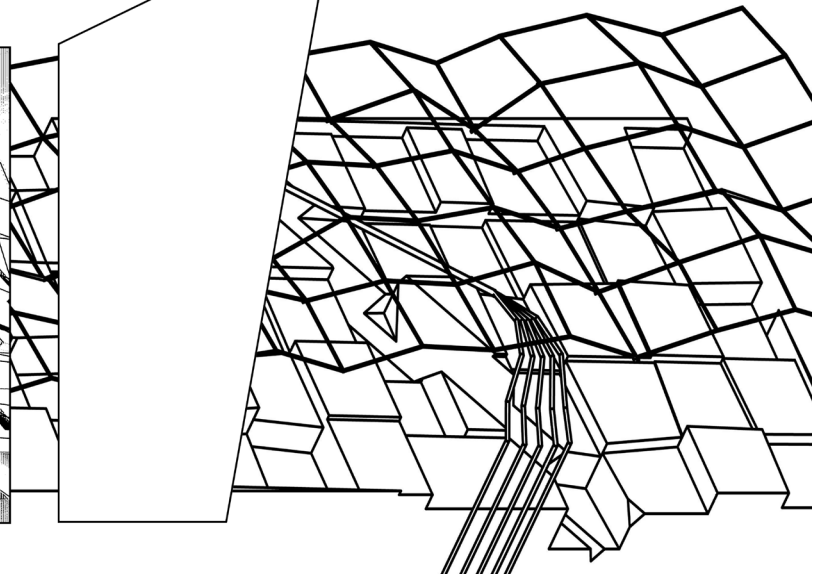


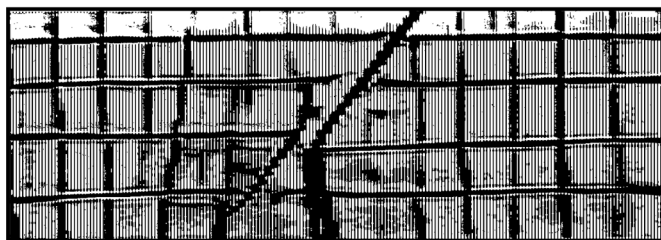
Narrative walkthrough of Antinomy (experiment)



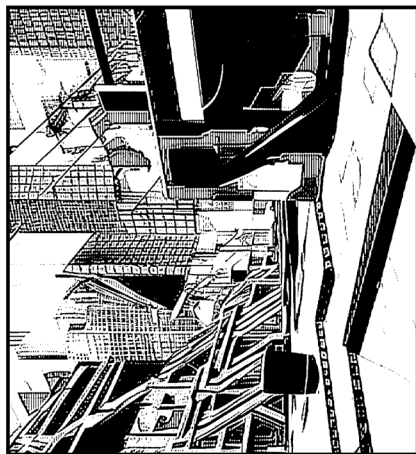


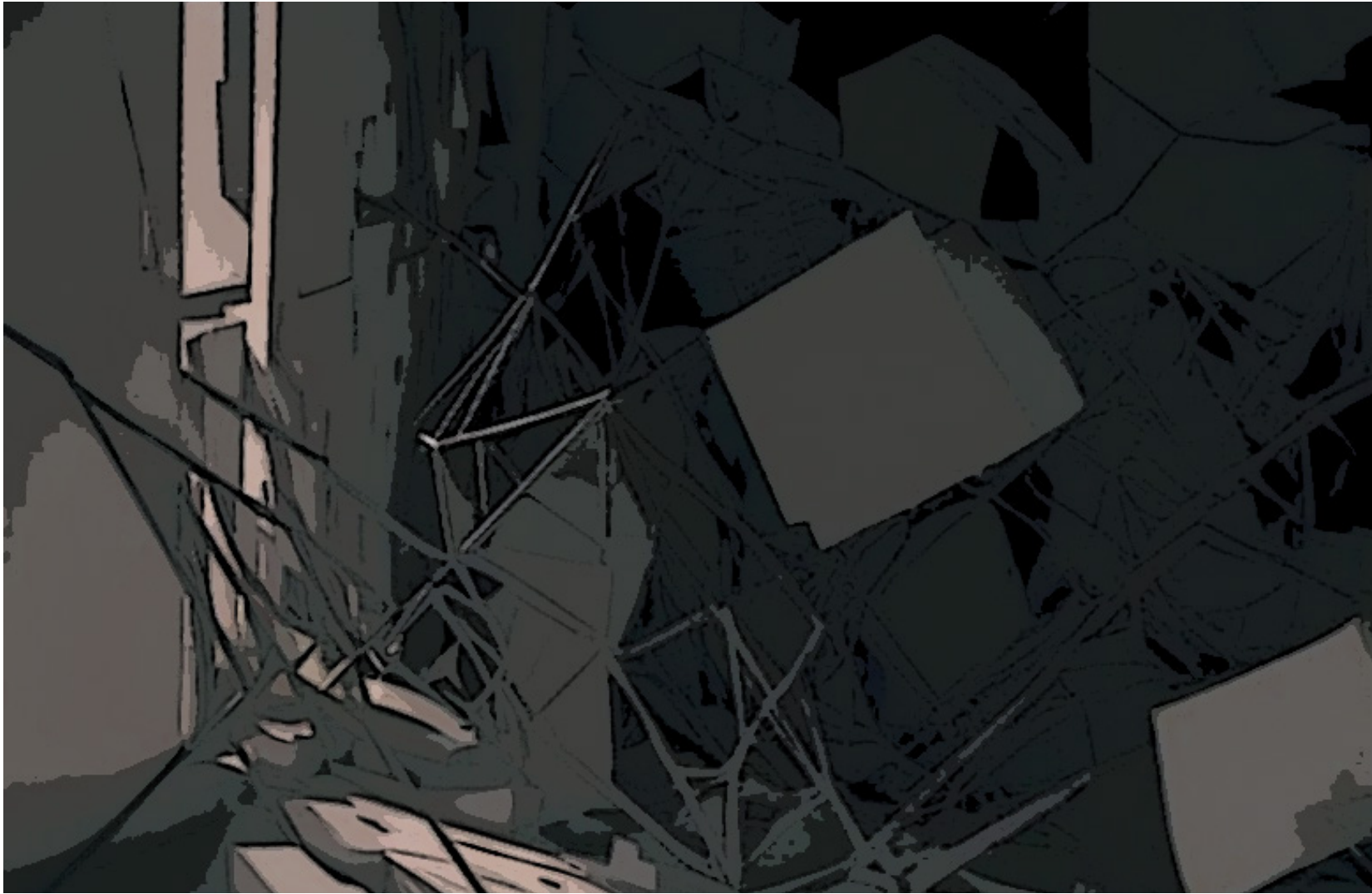
After experimenting a couple times, the idea to use a graphic novel as format of the narrative walkthrough seemed promising.





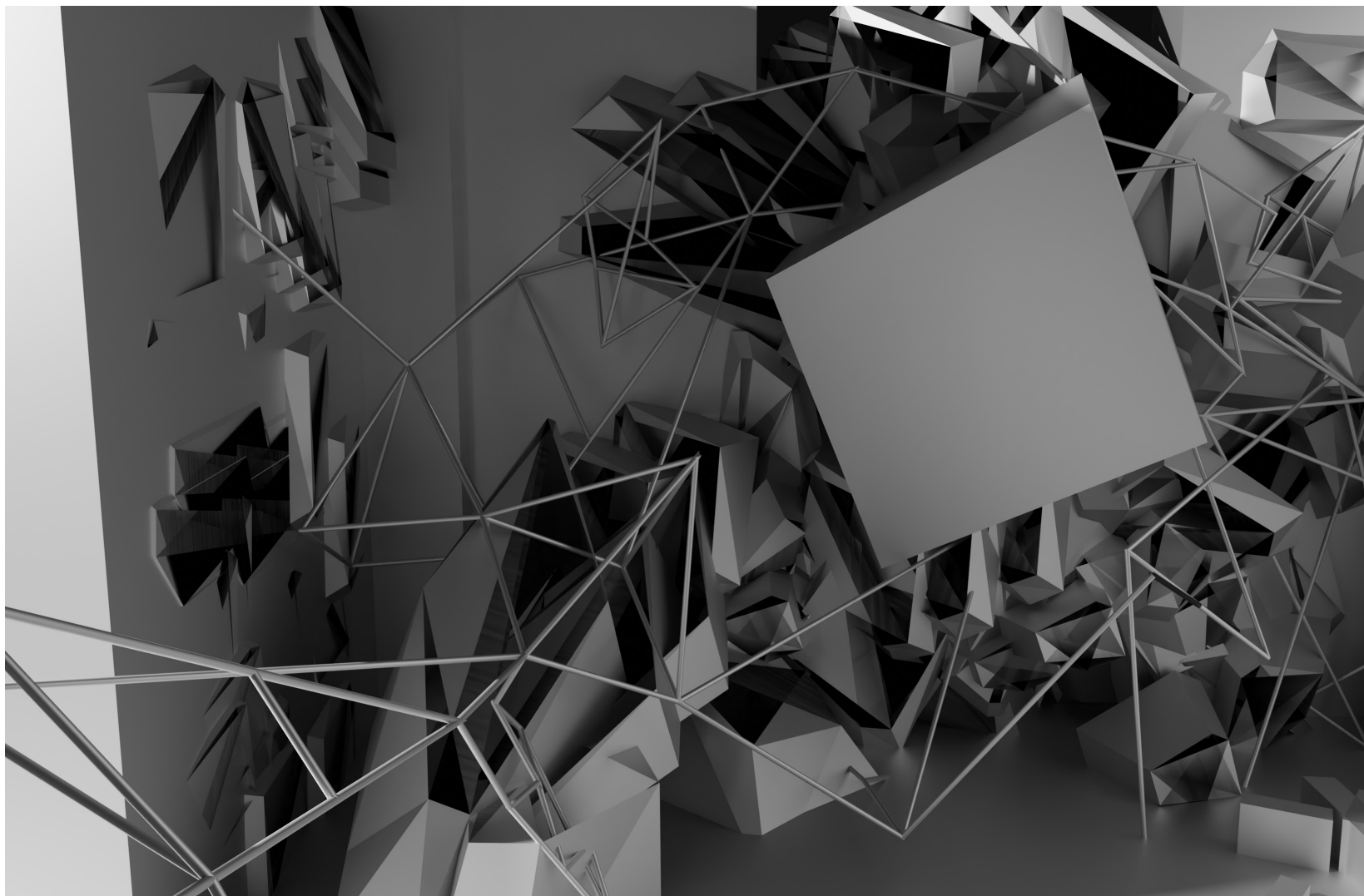
SETTLERS OF ANTINOMY

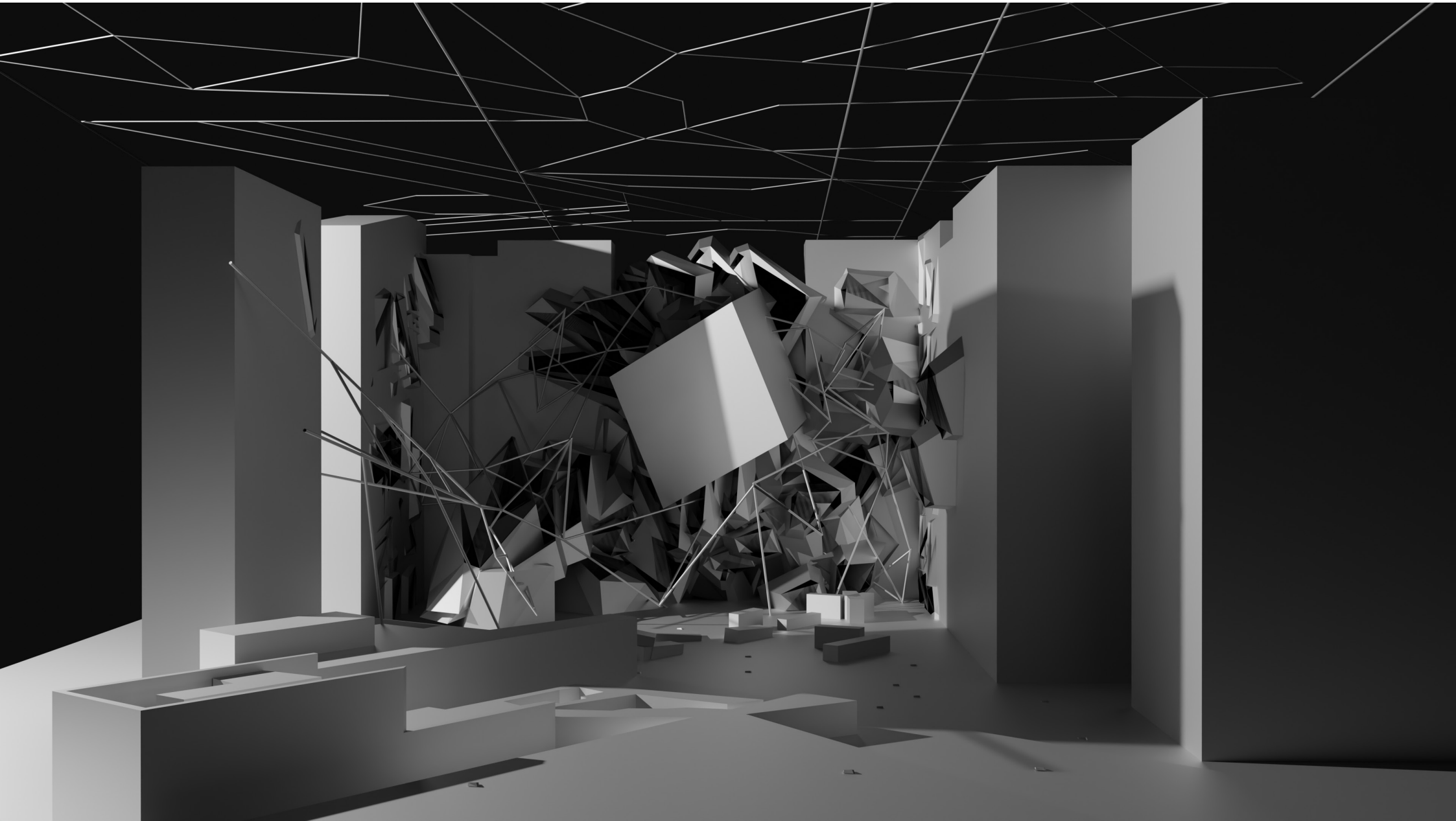




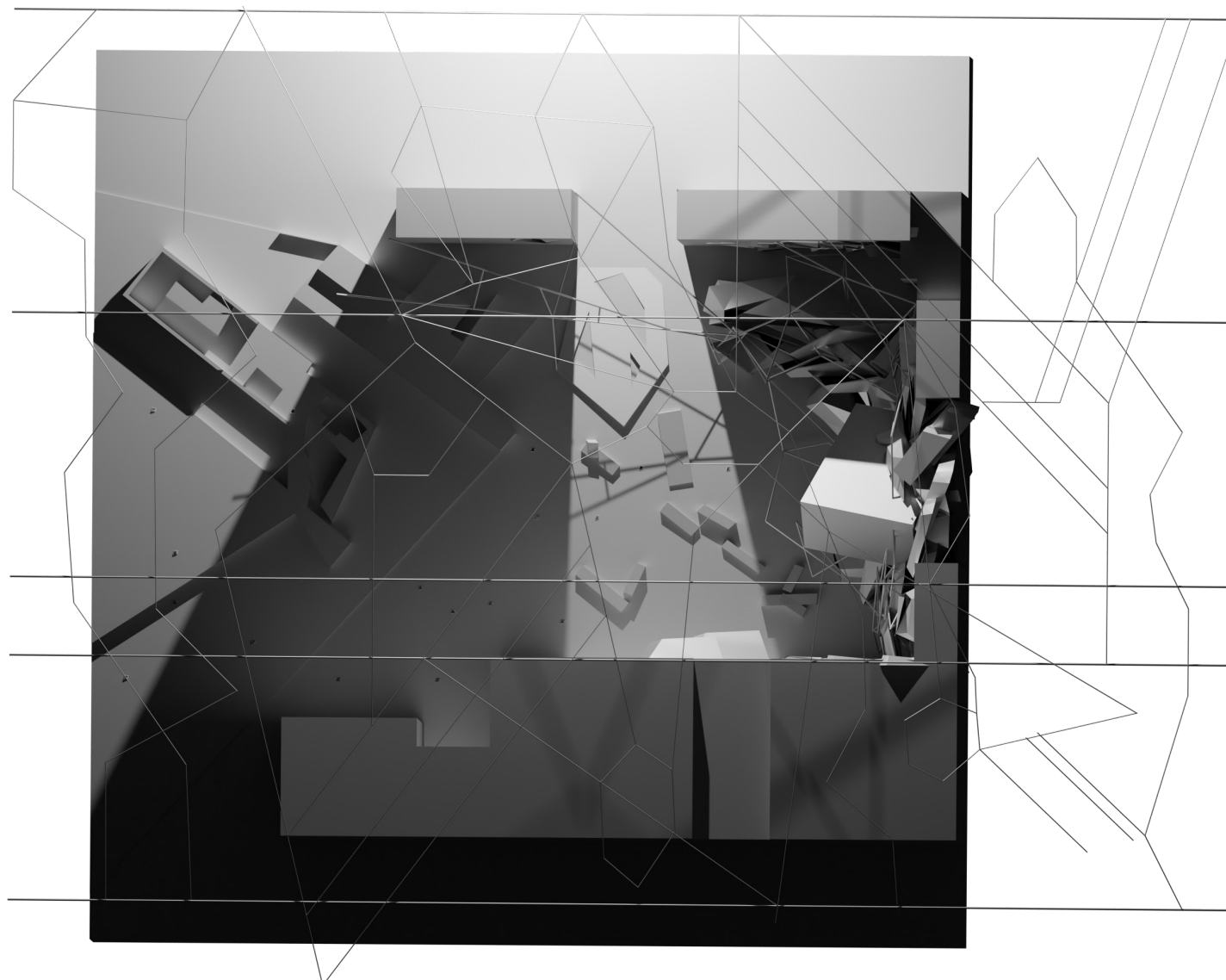
AI Irregularity

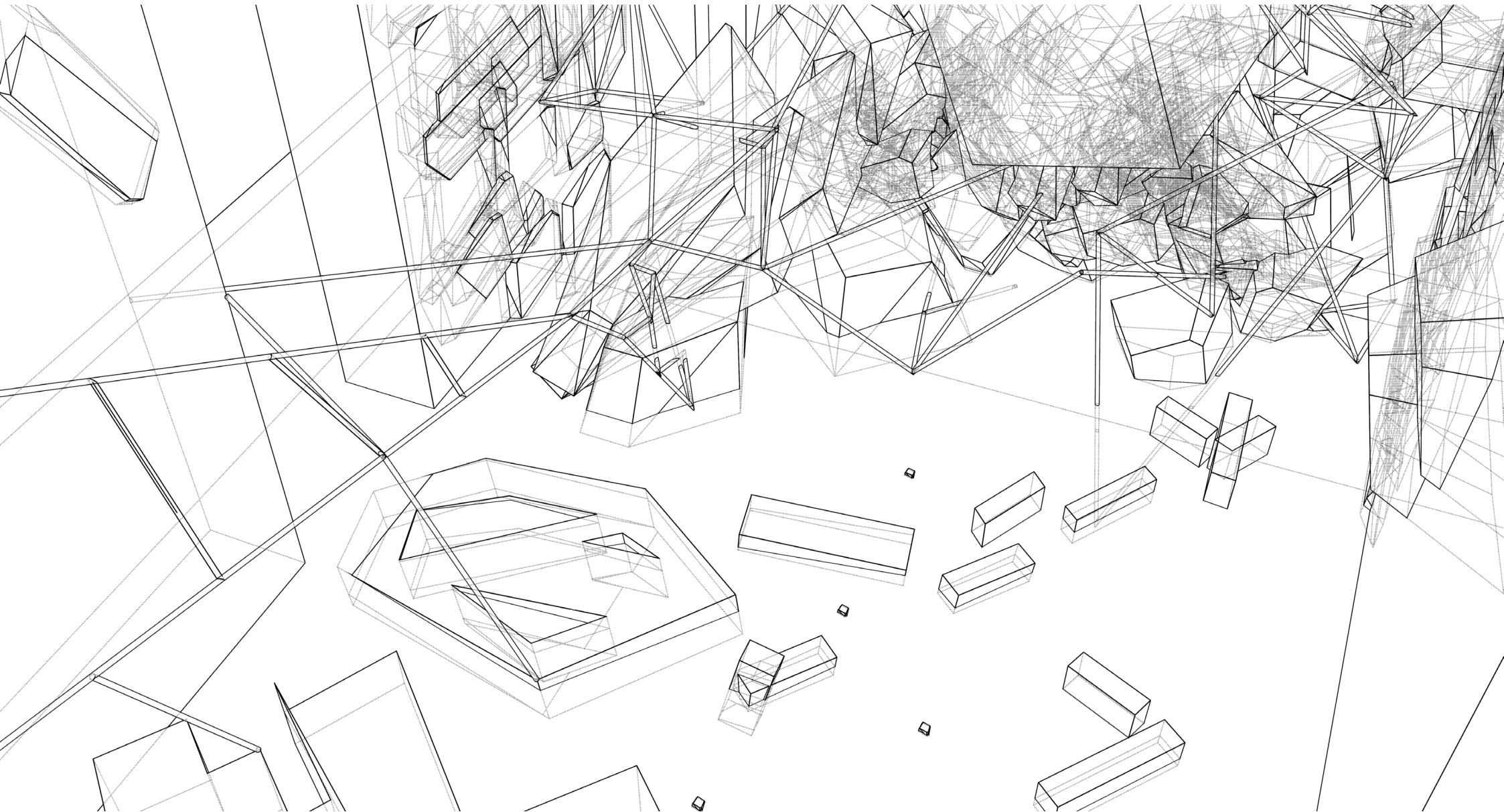
Another round of modeling



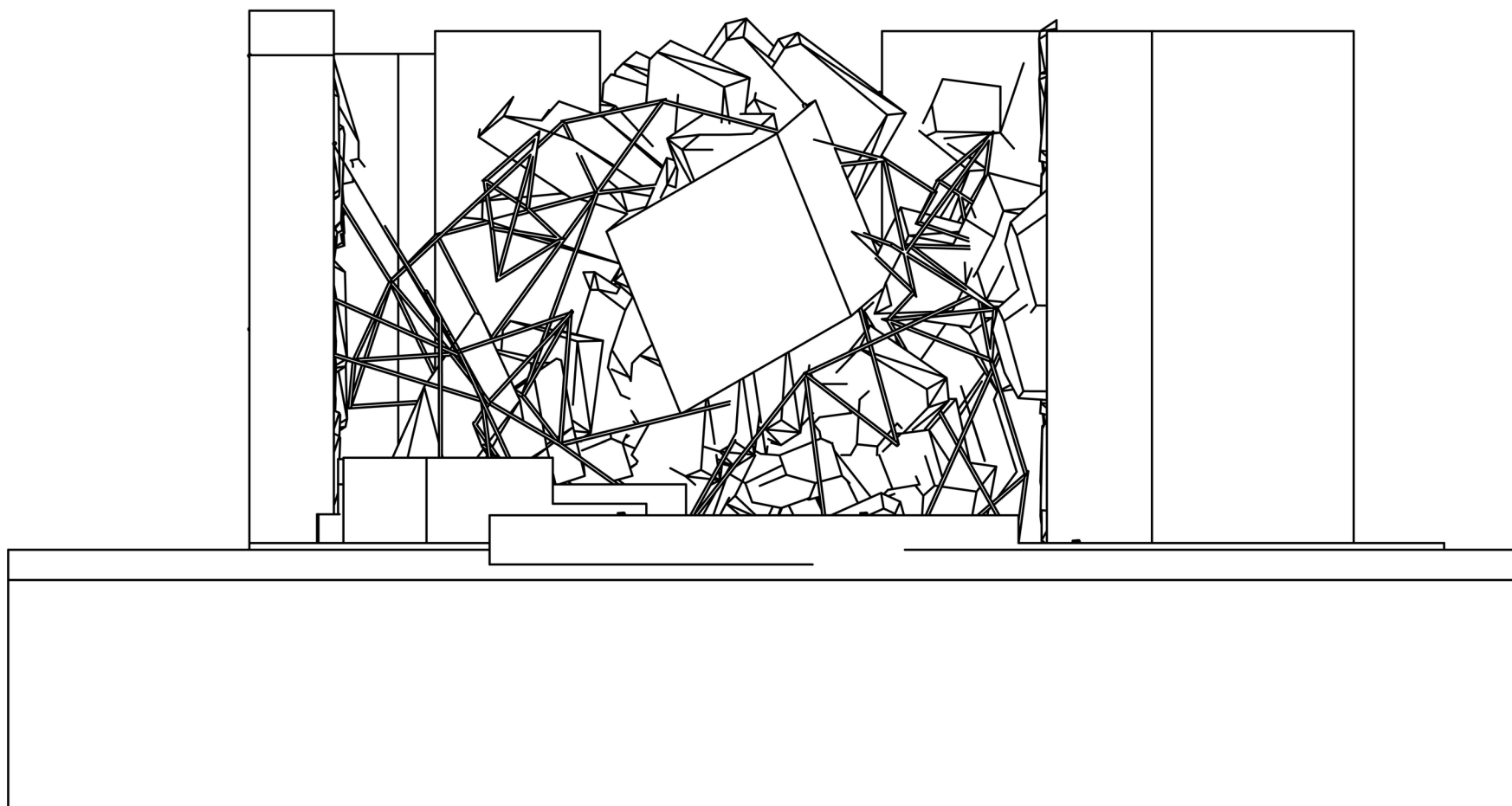


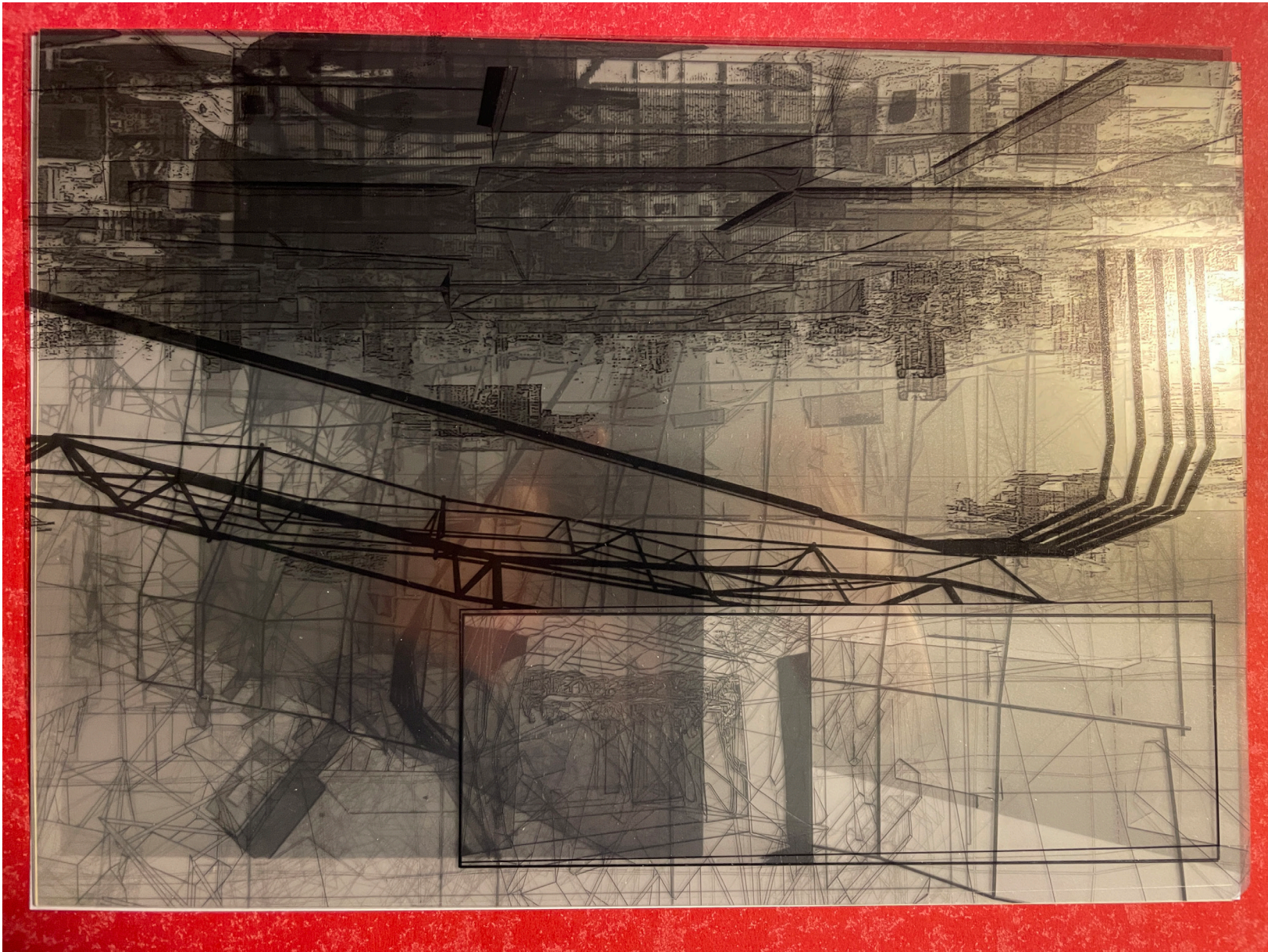
Another round of modeling

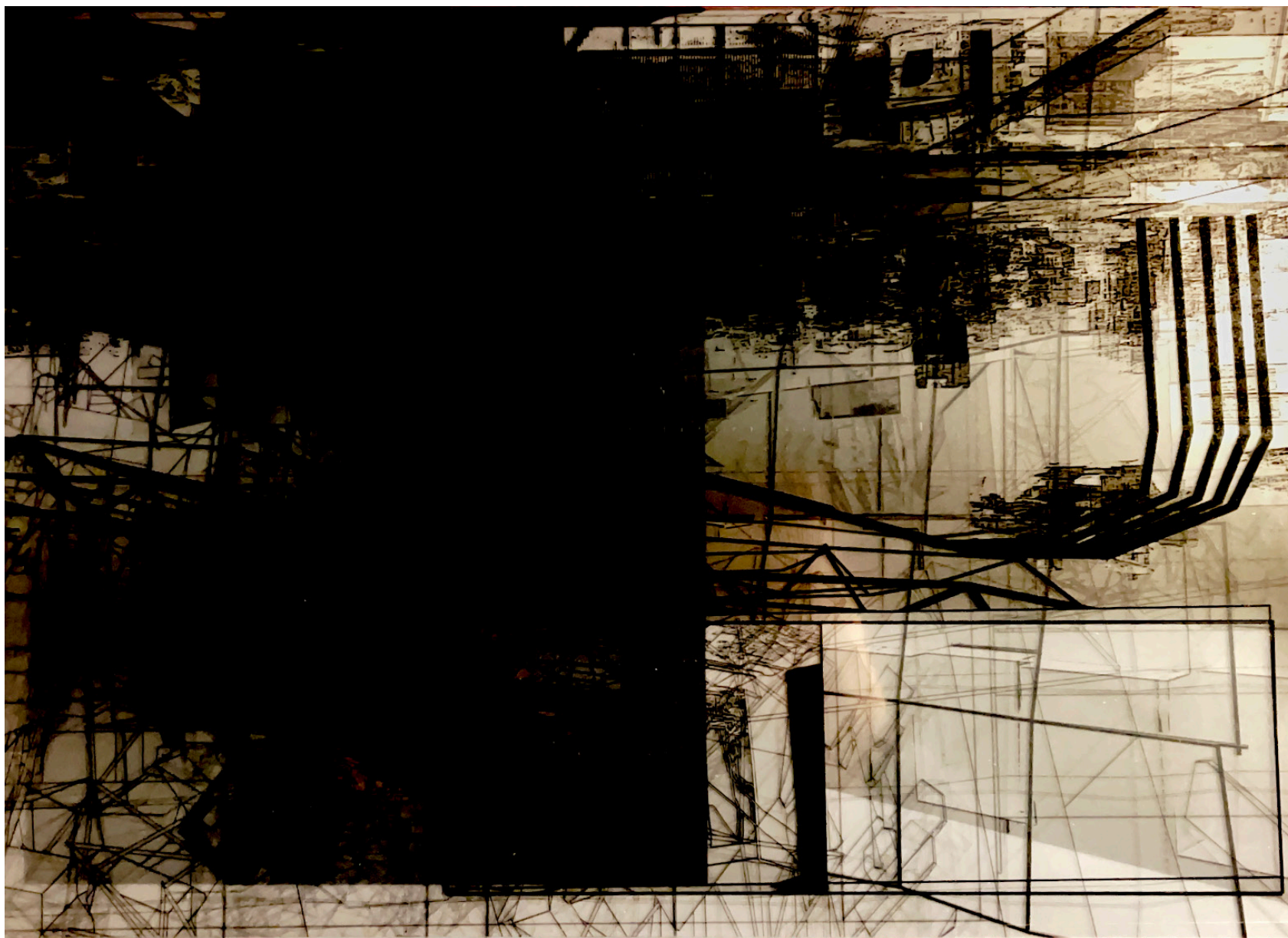




Another round of modeling

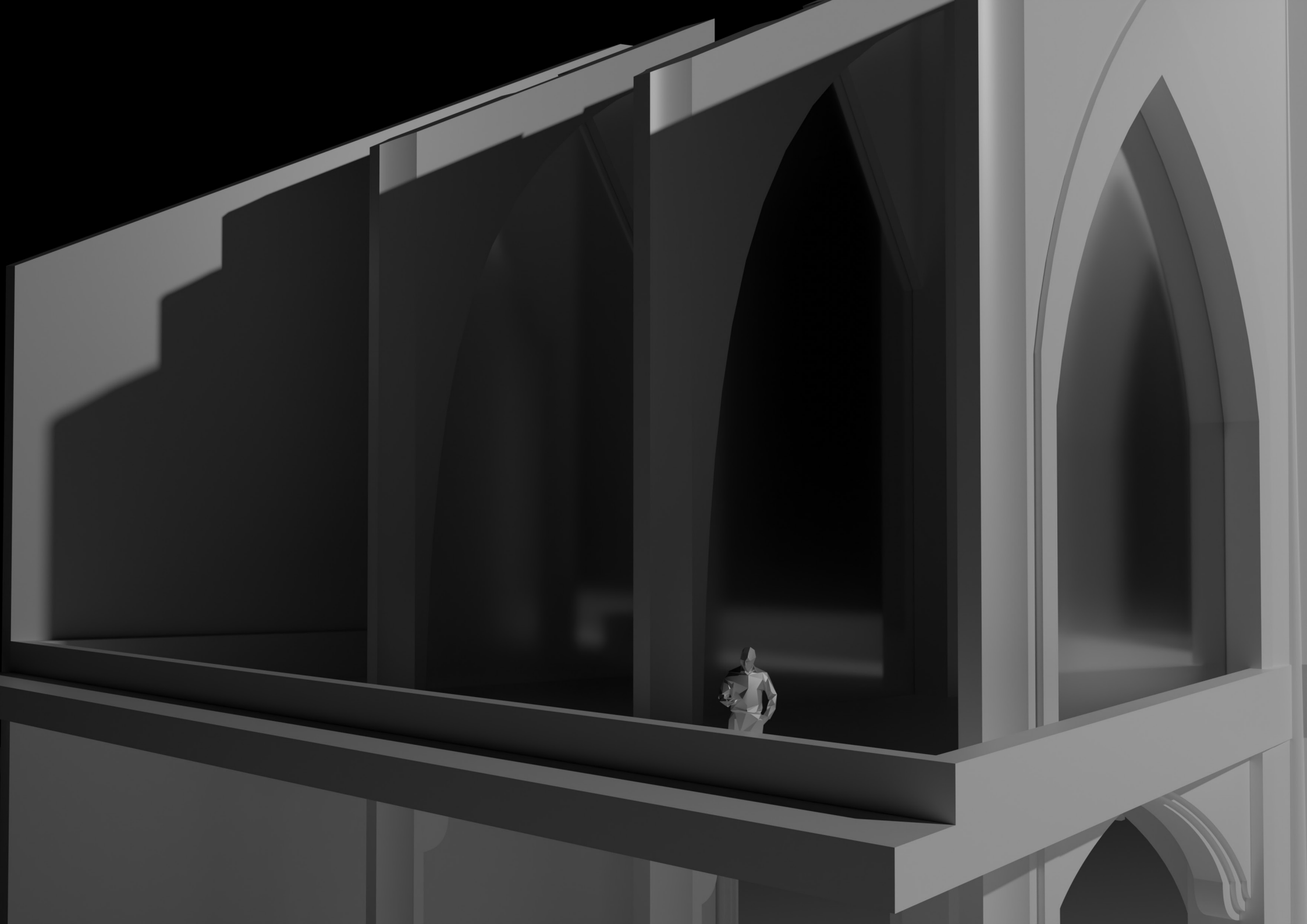


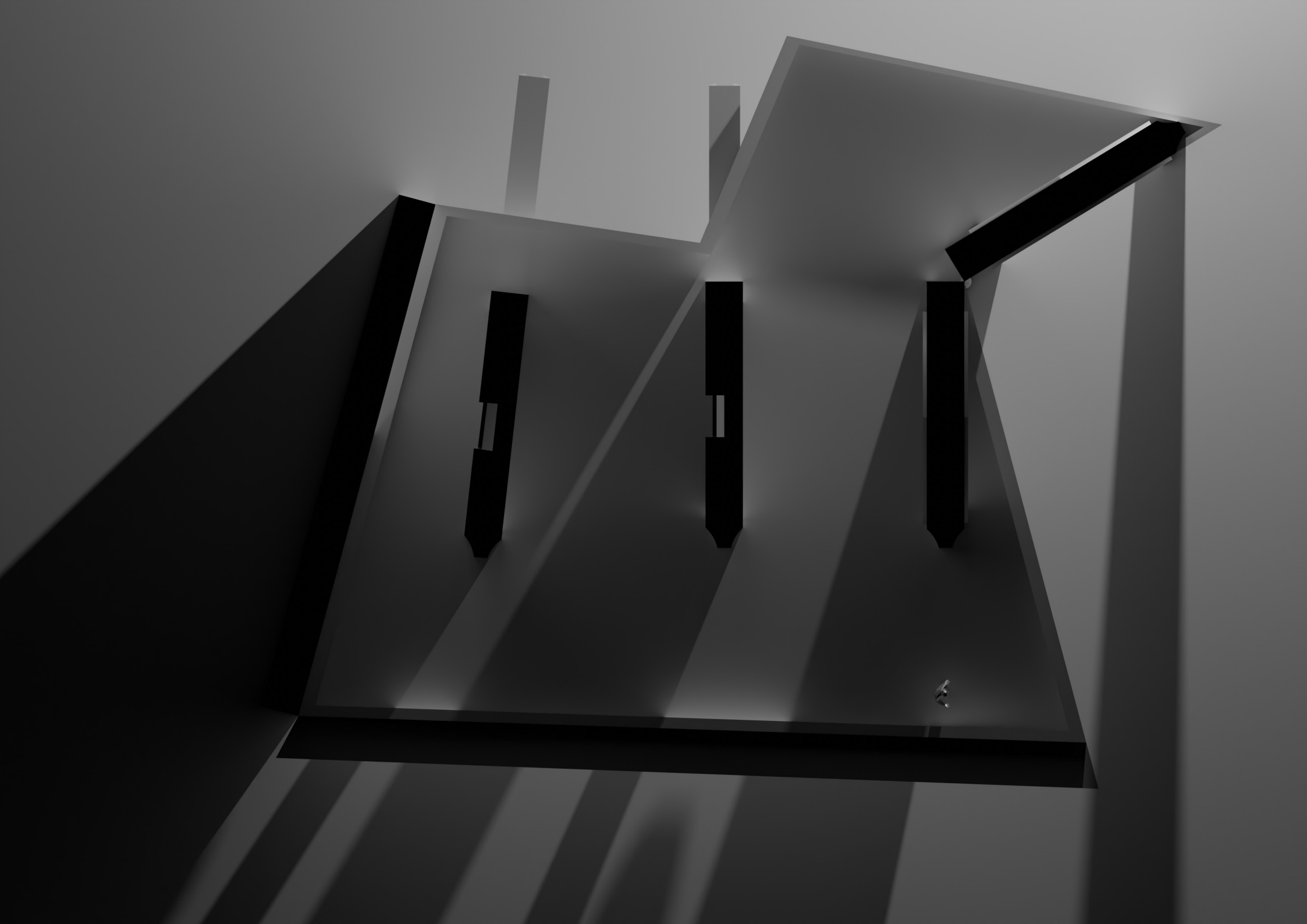


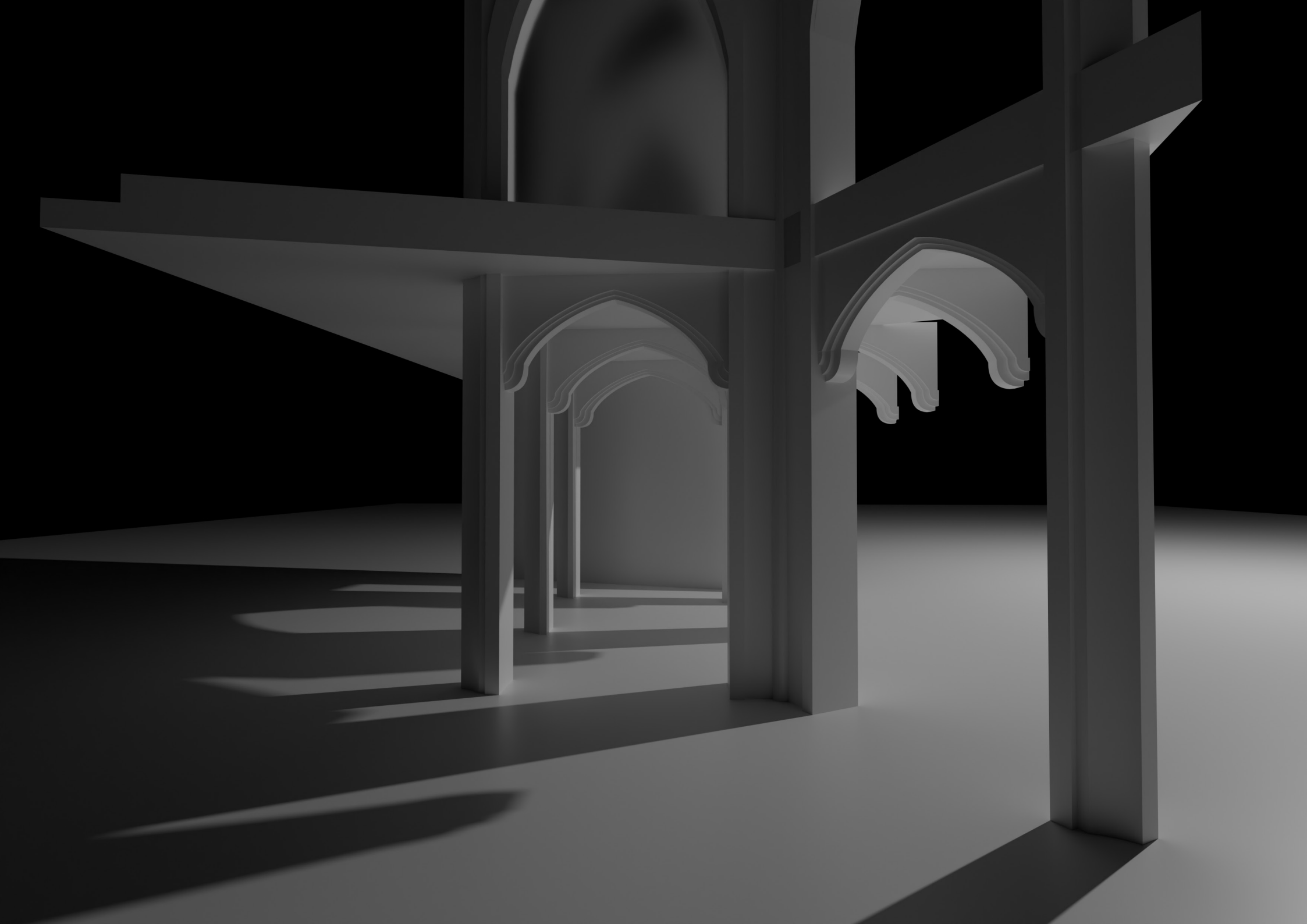


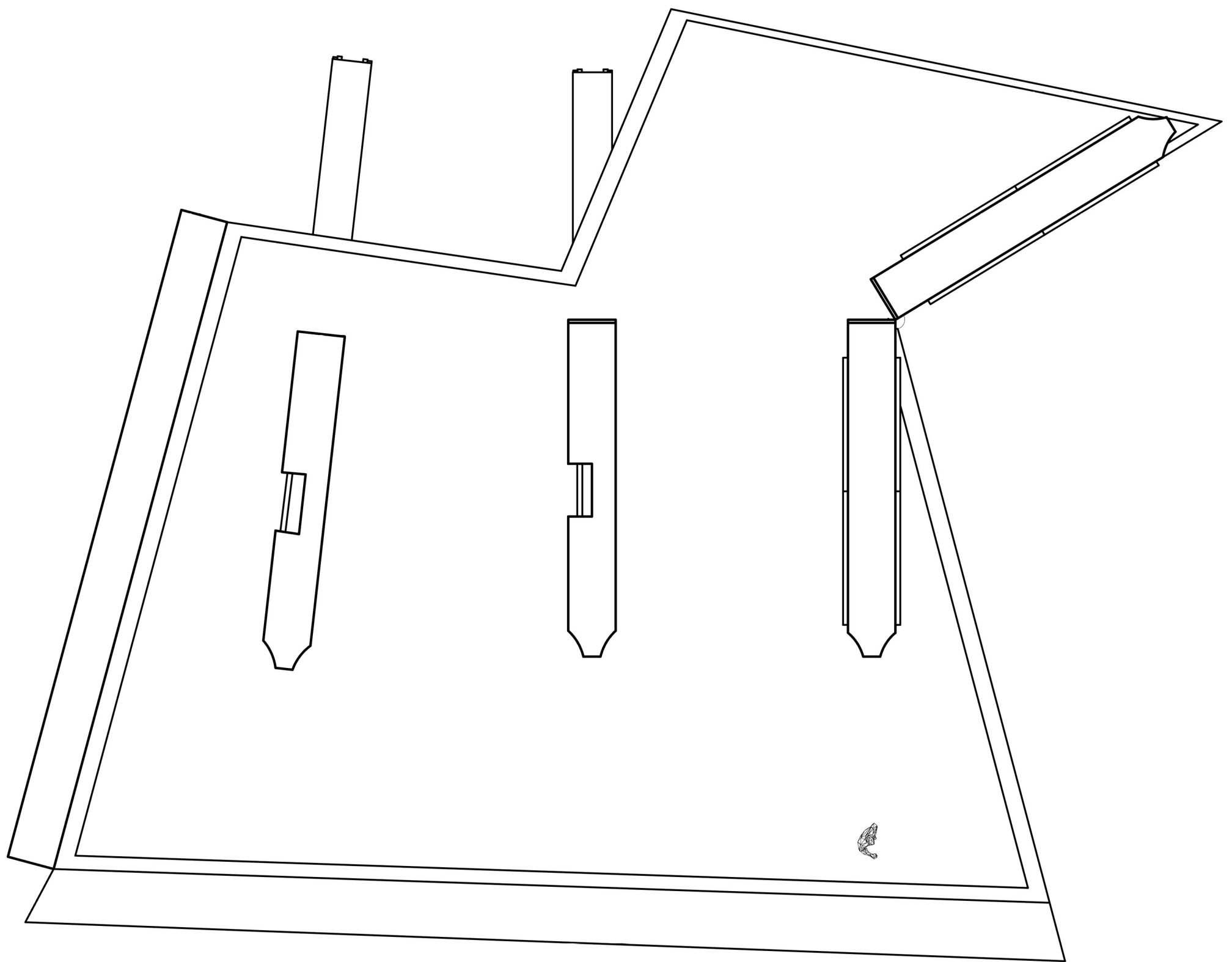
Week 14: Jury preparations/AI irregularities

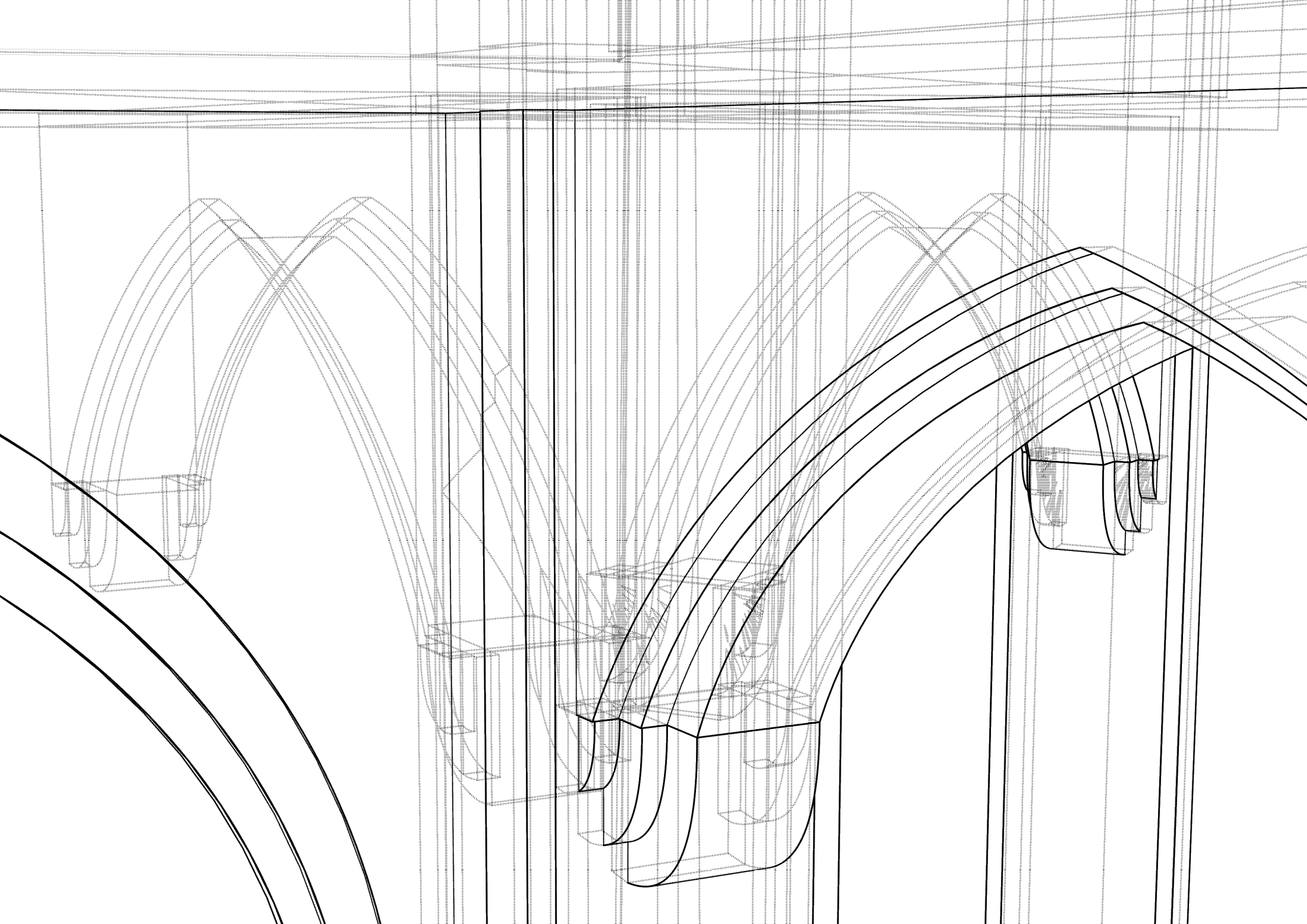


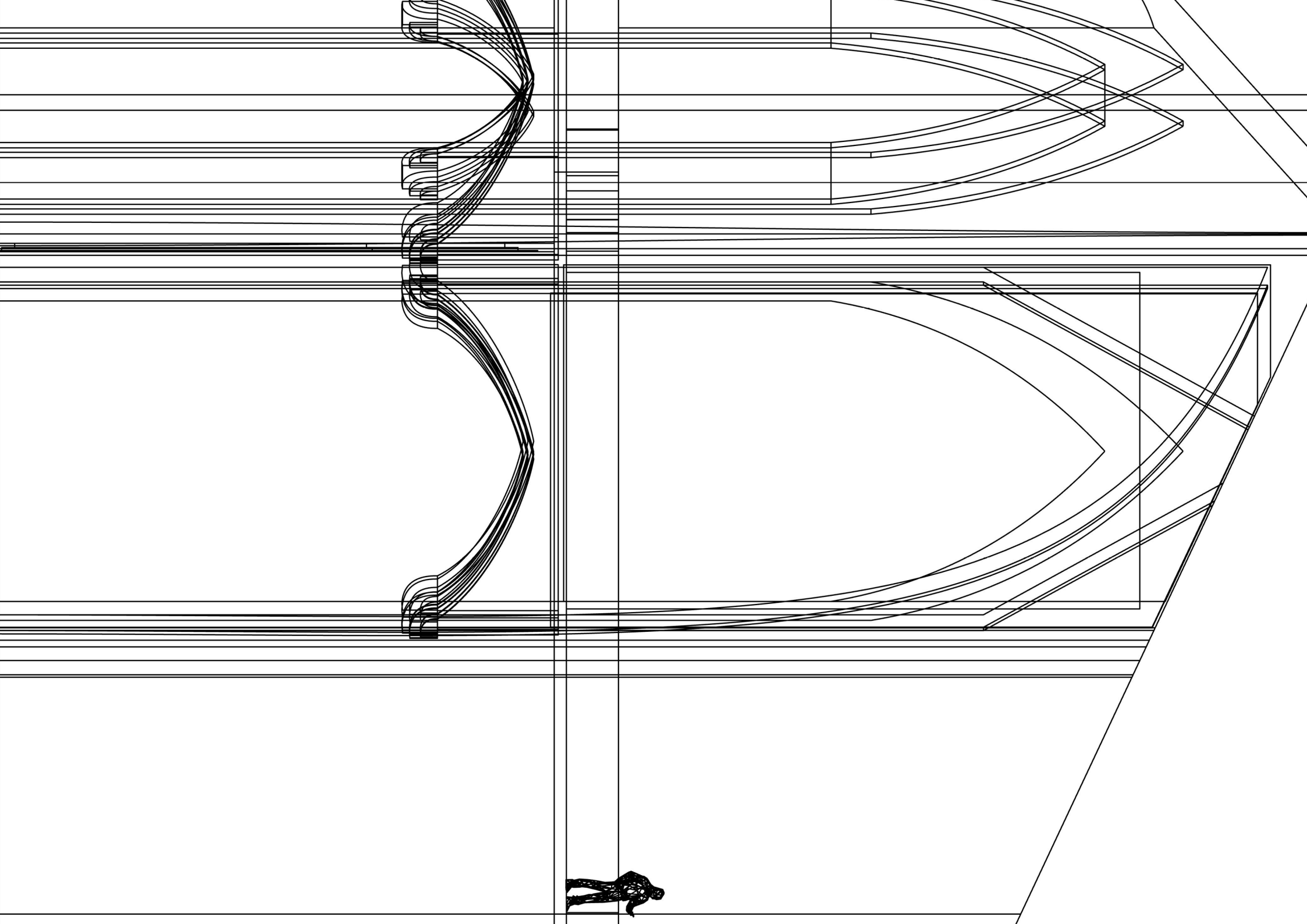




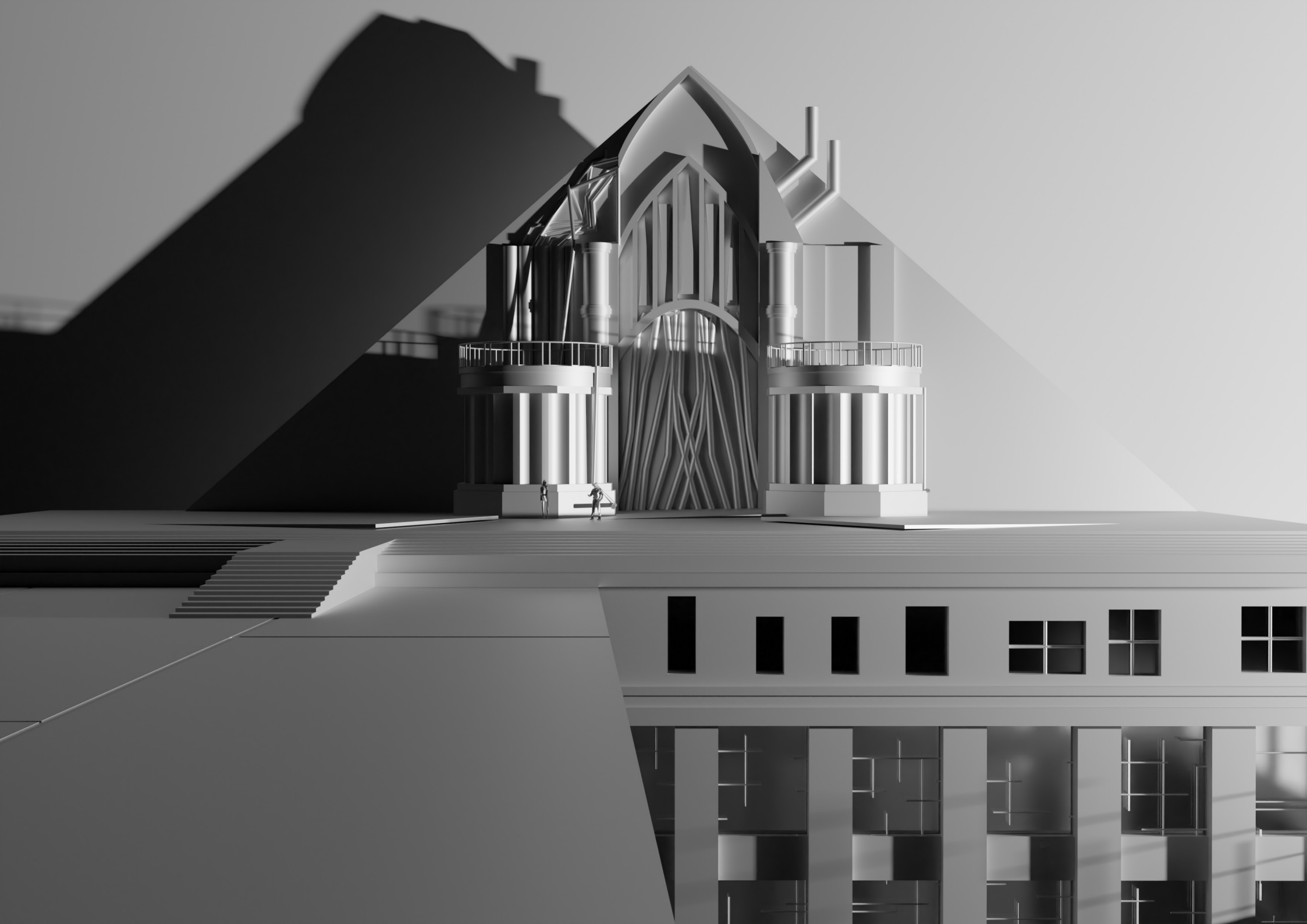


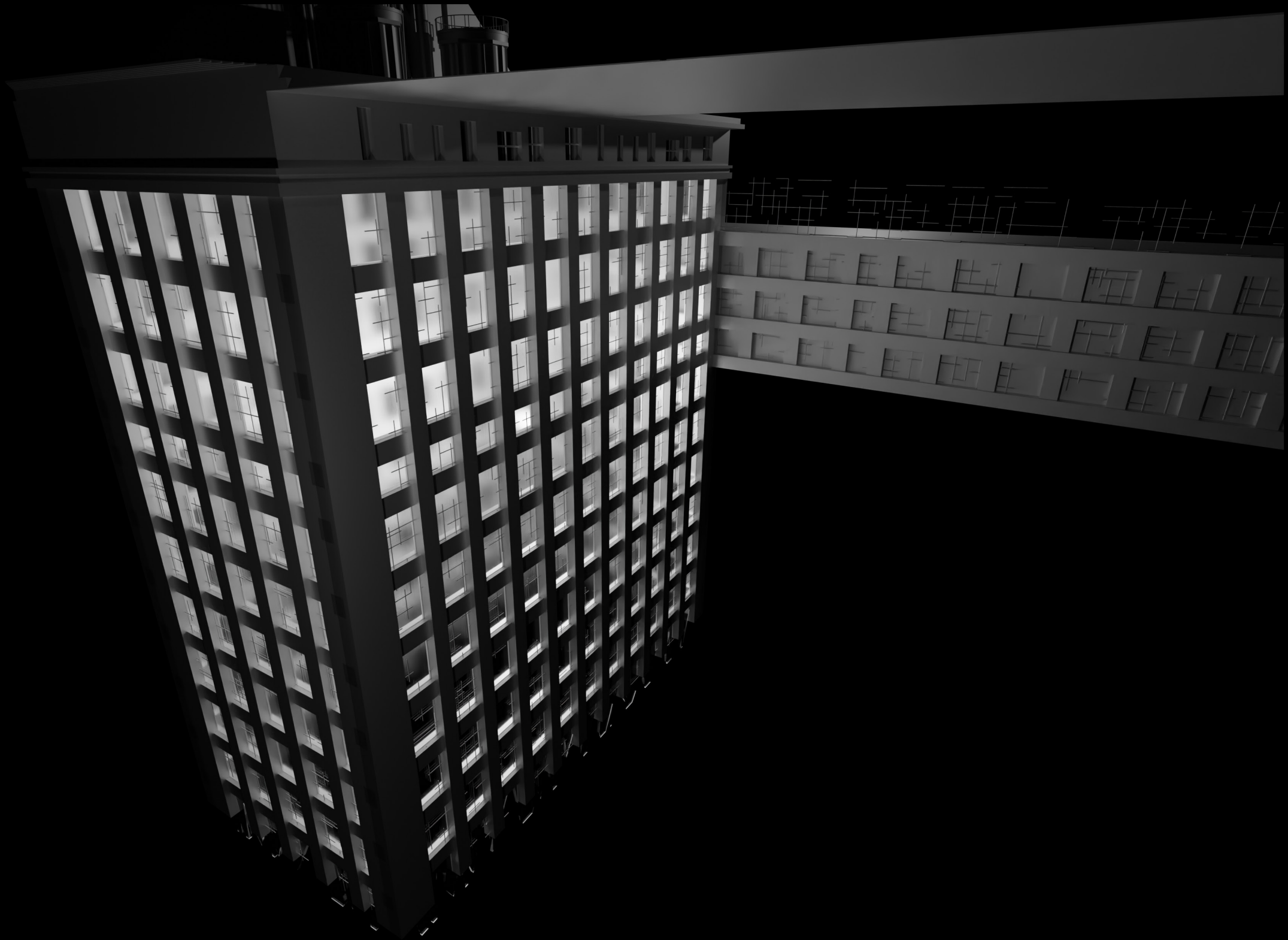


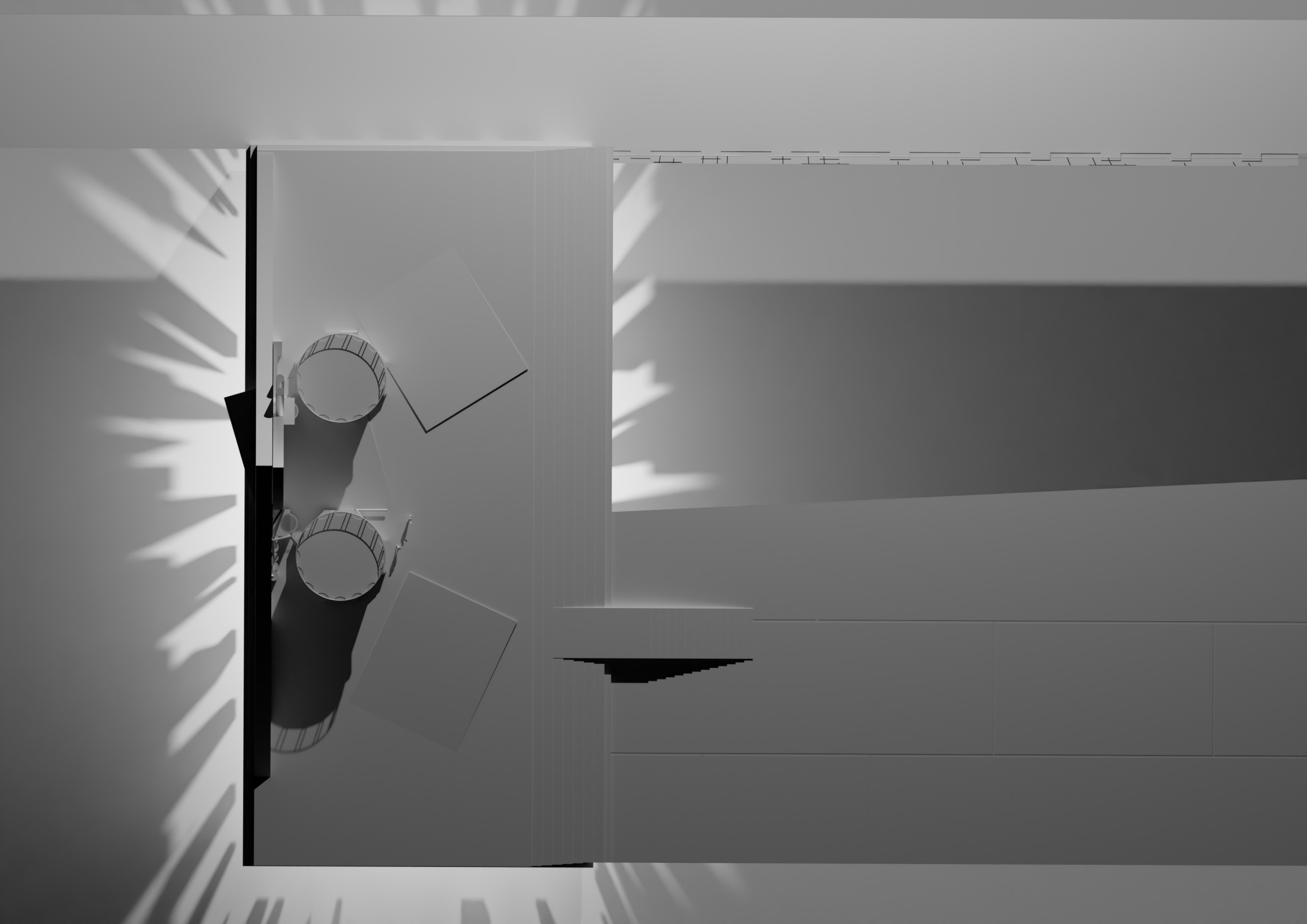


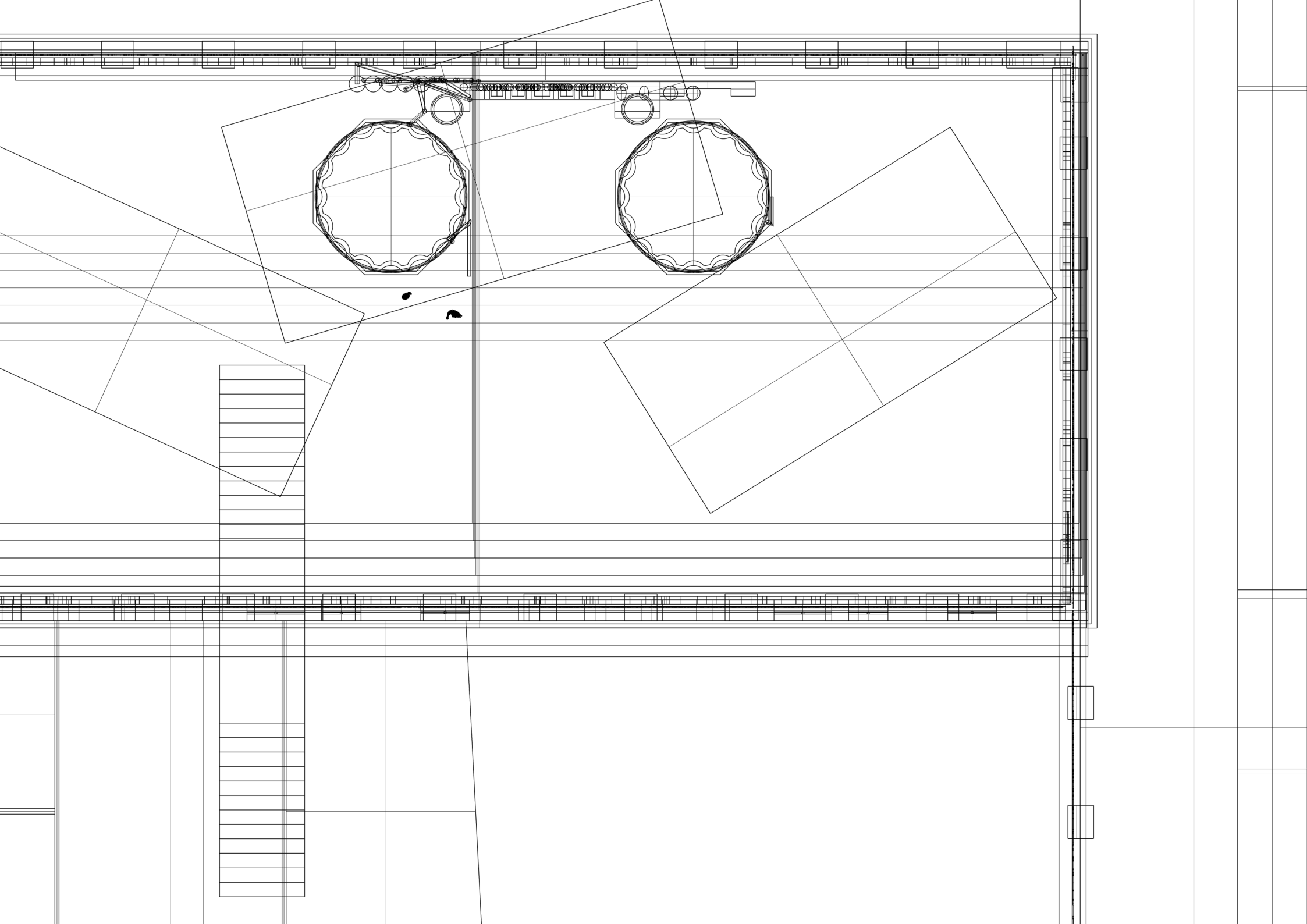


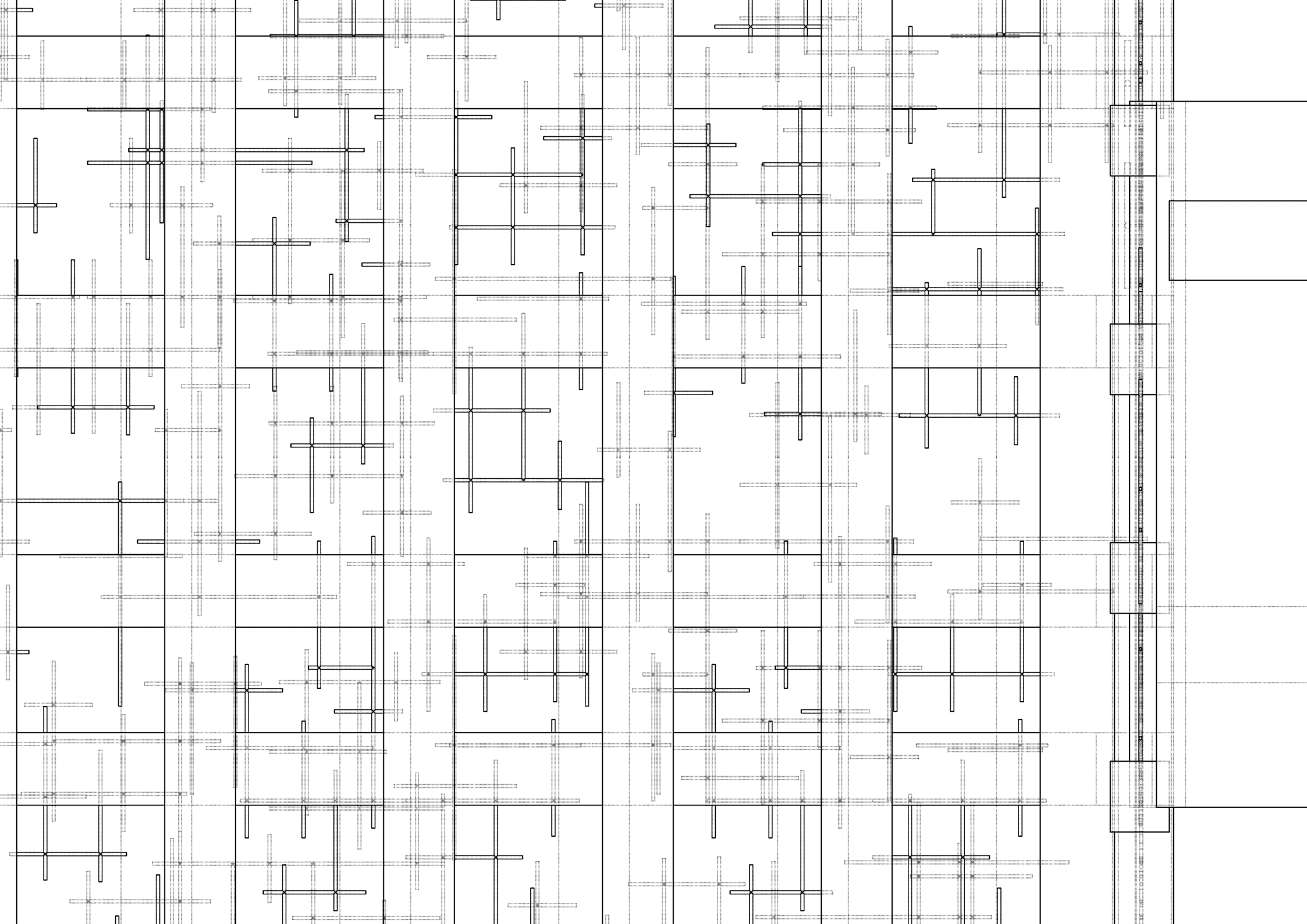


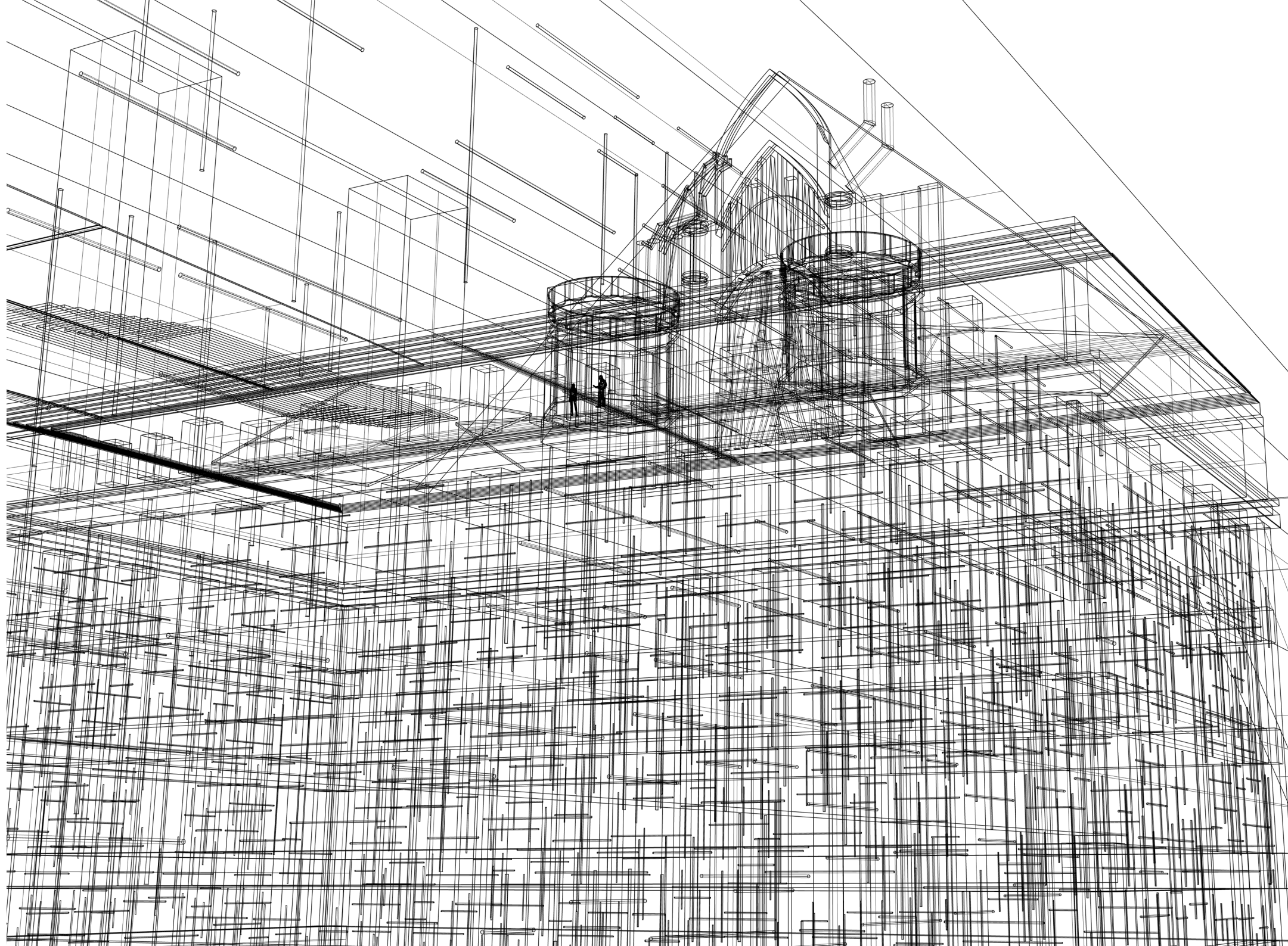


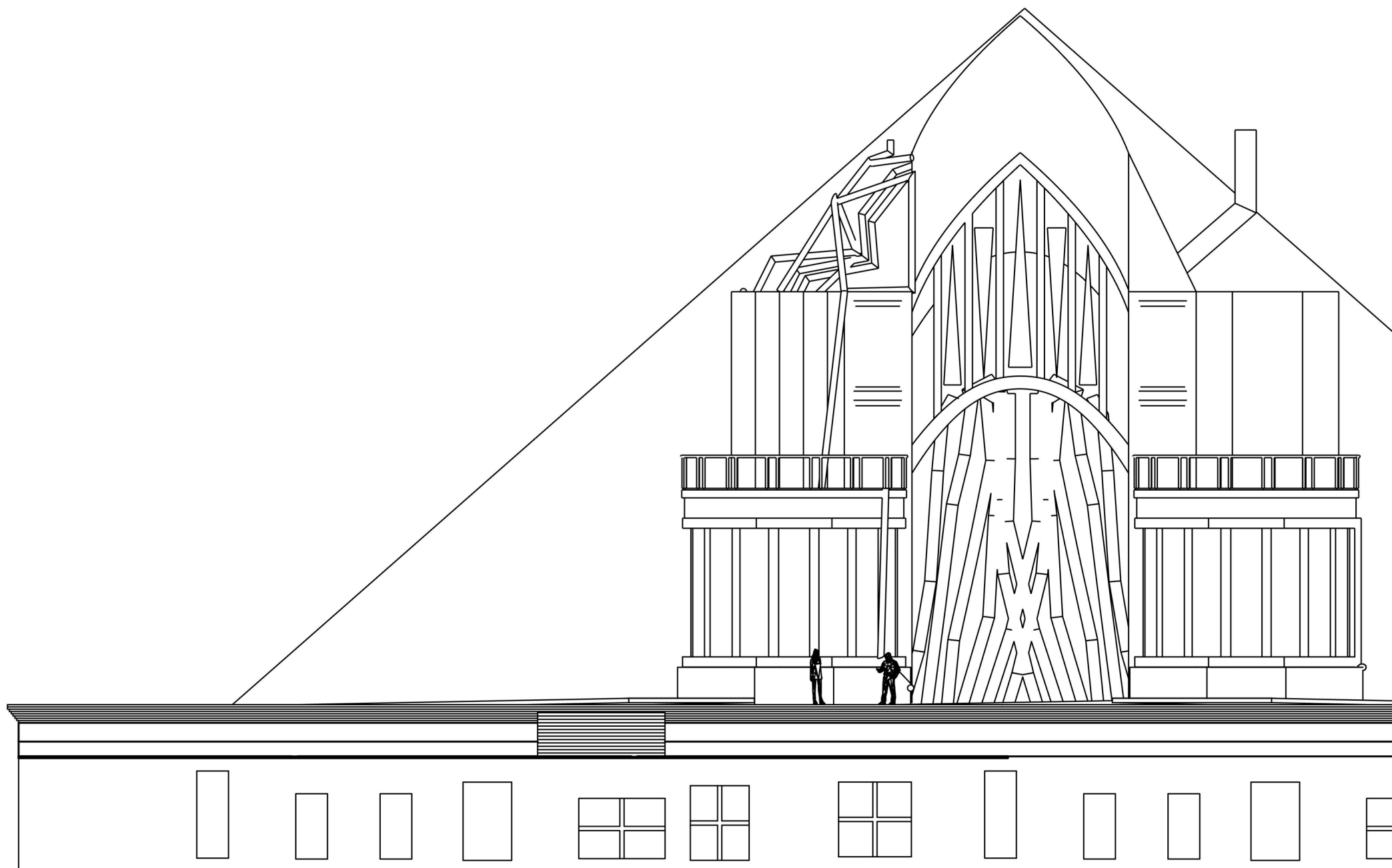


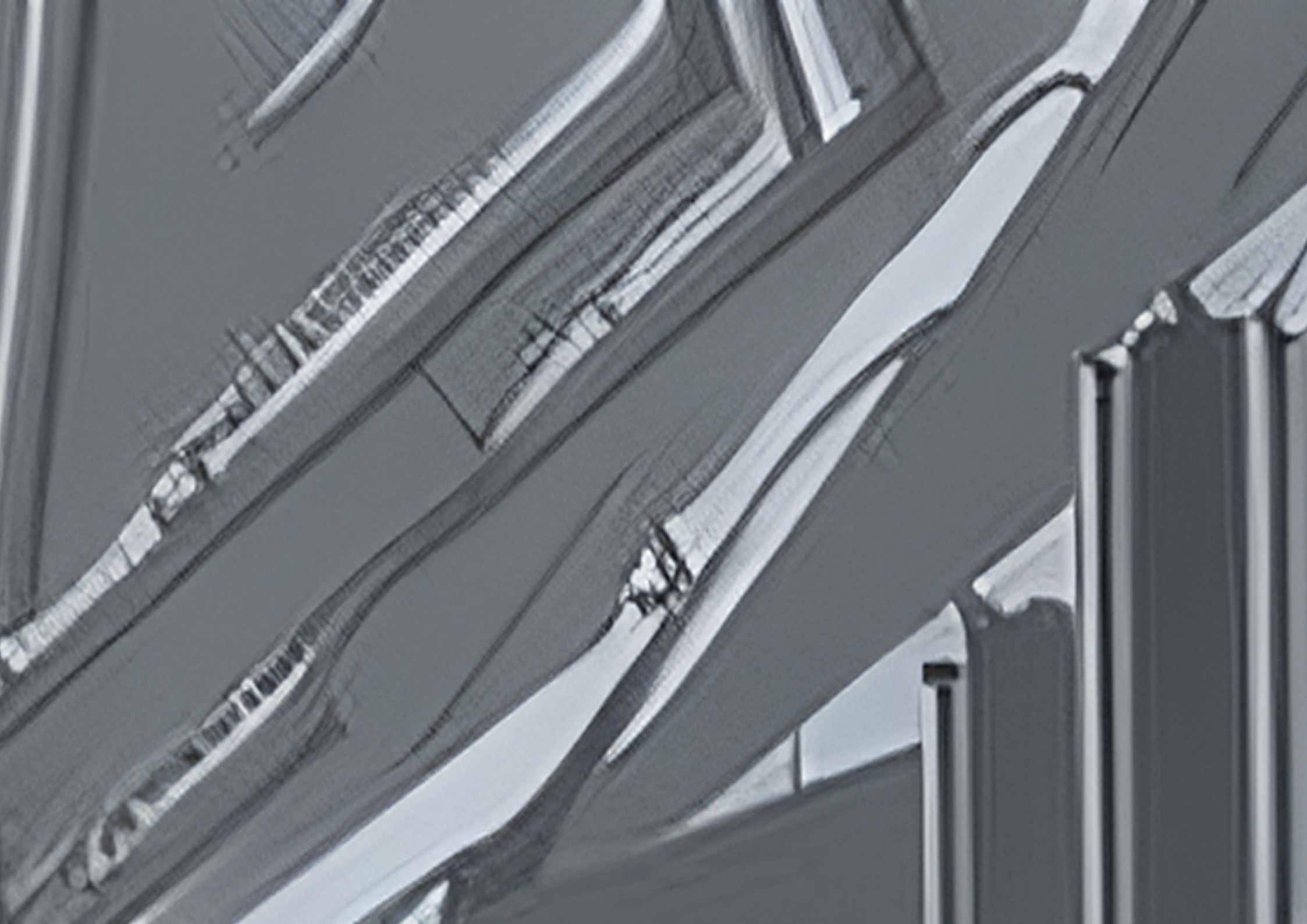


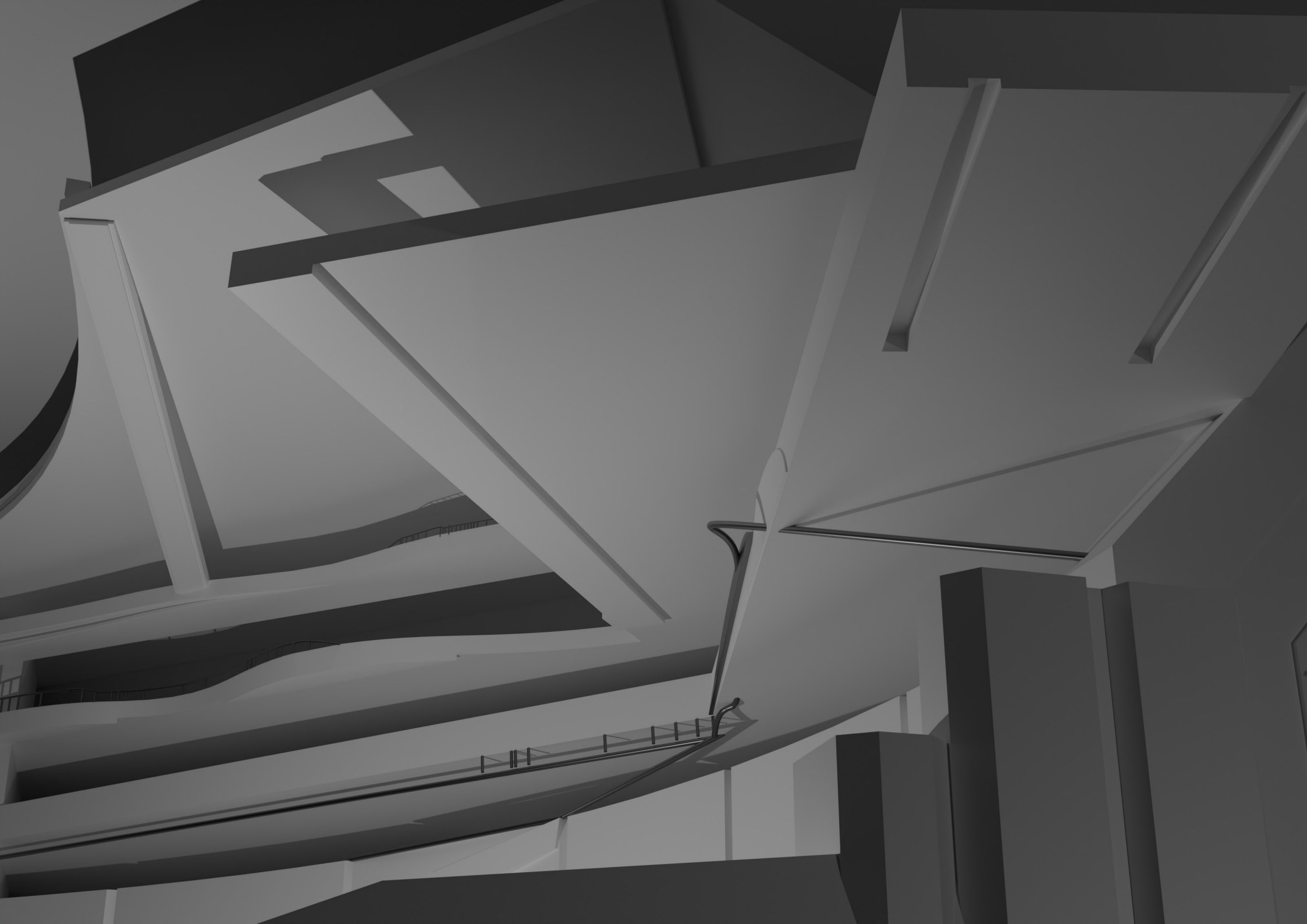


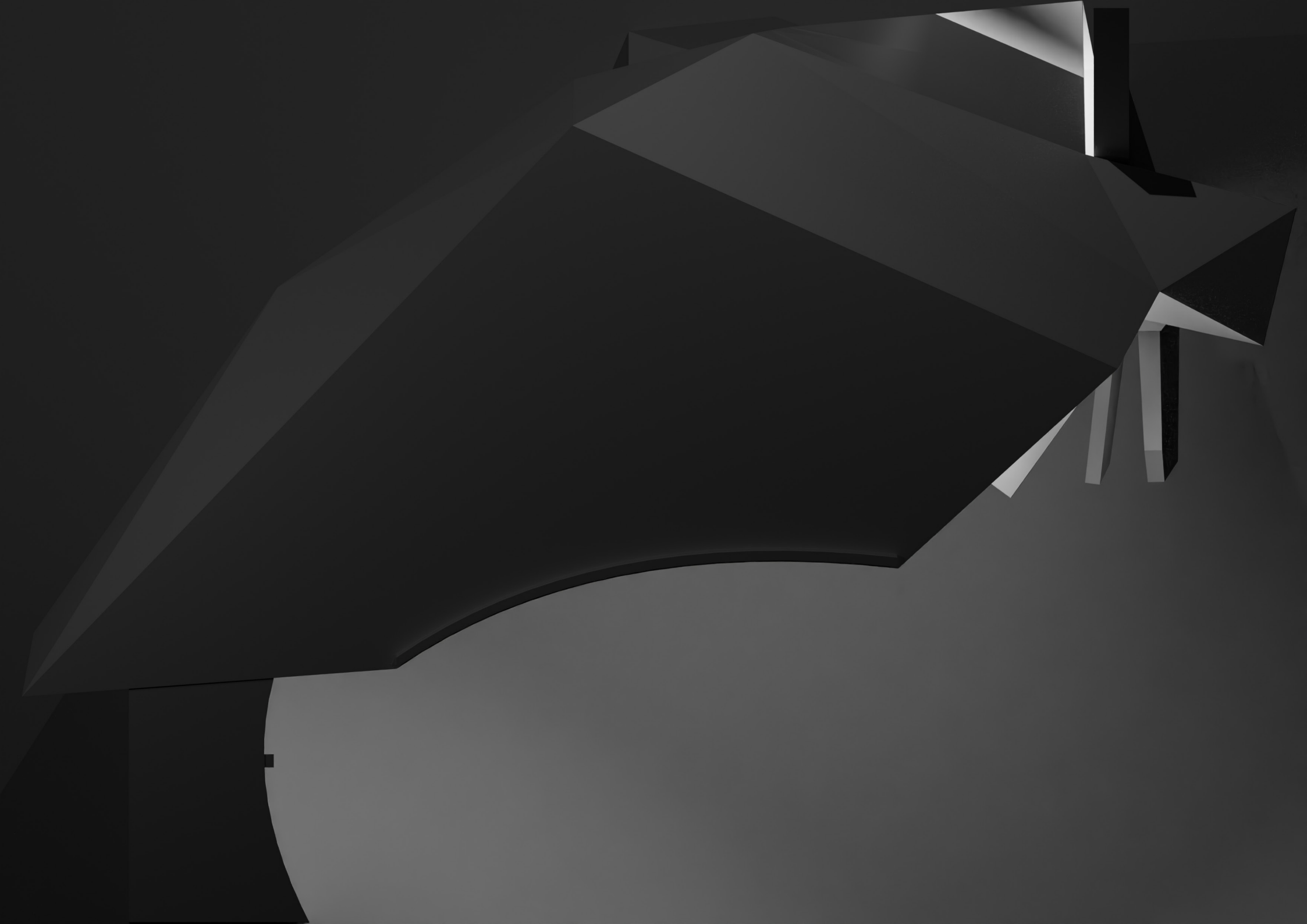


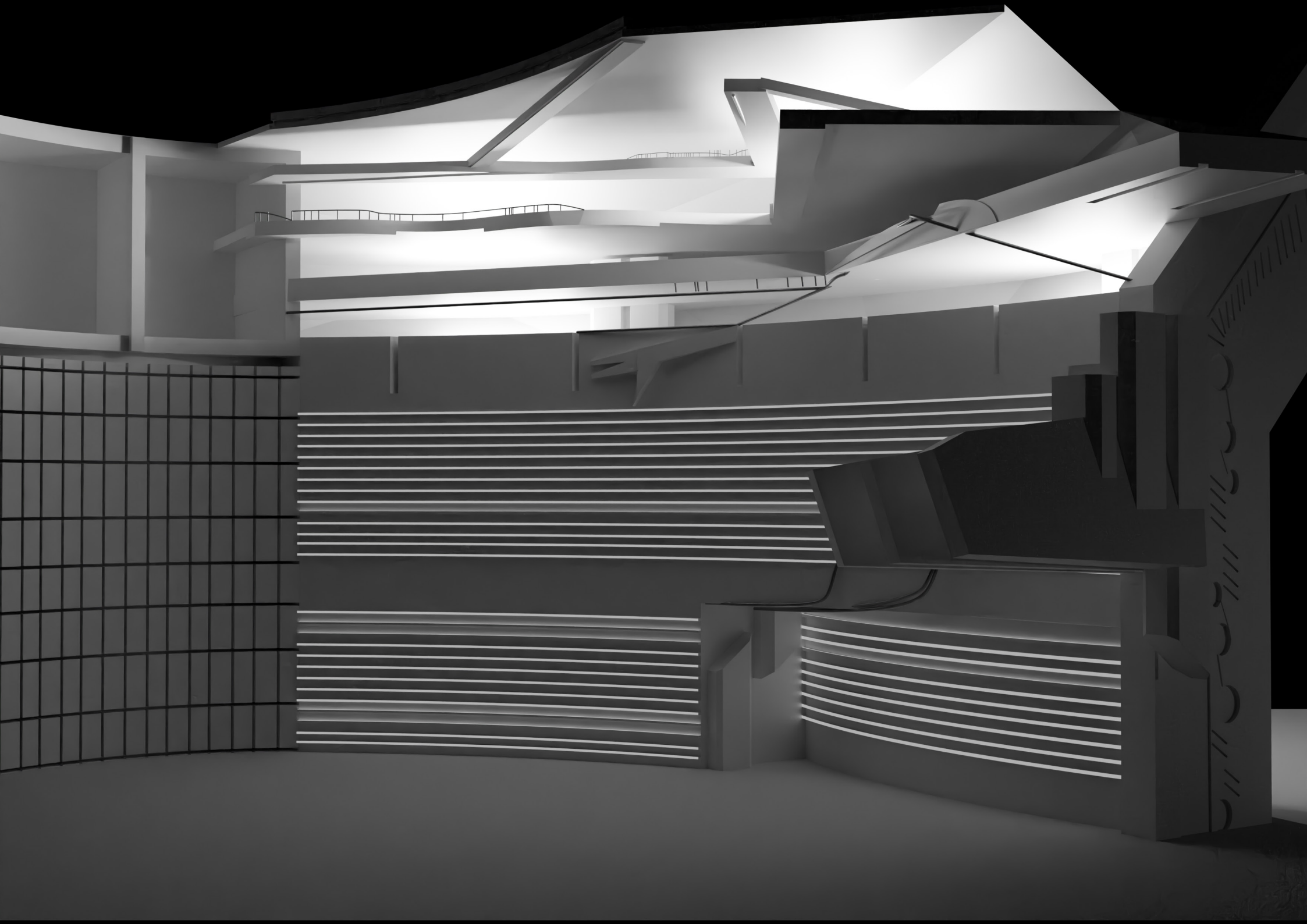


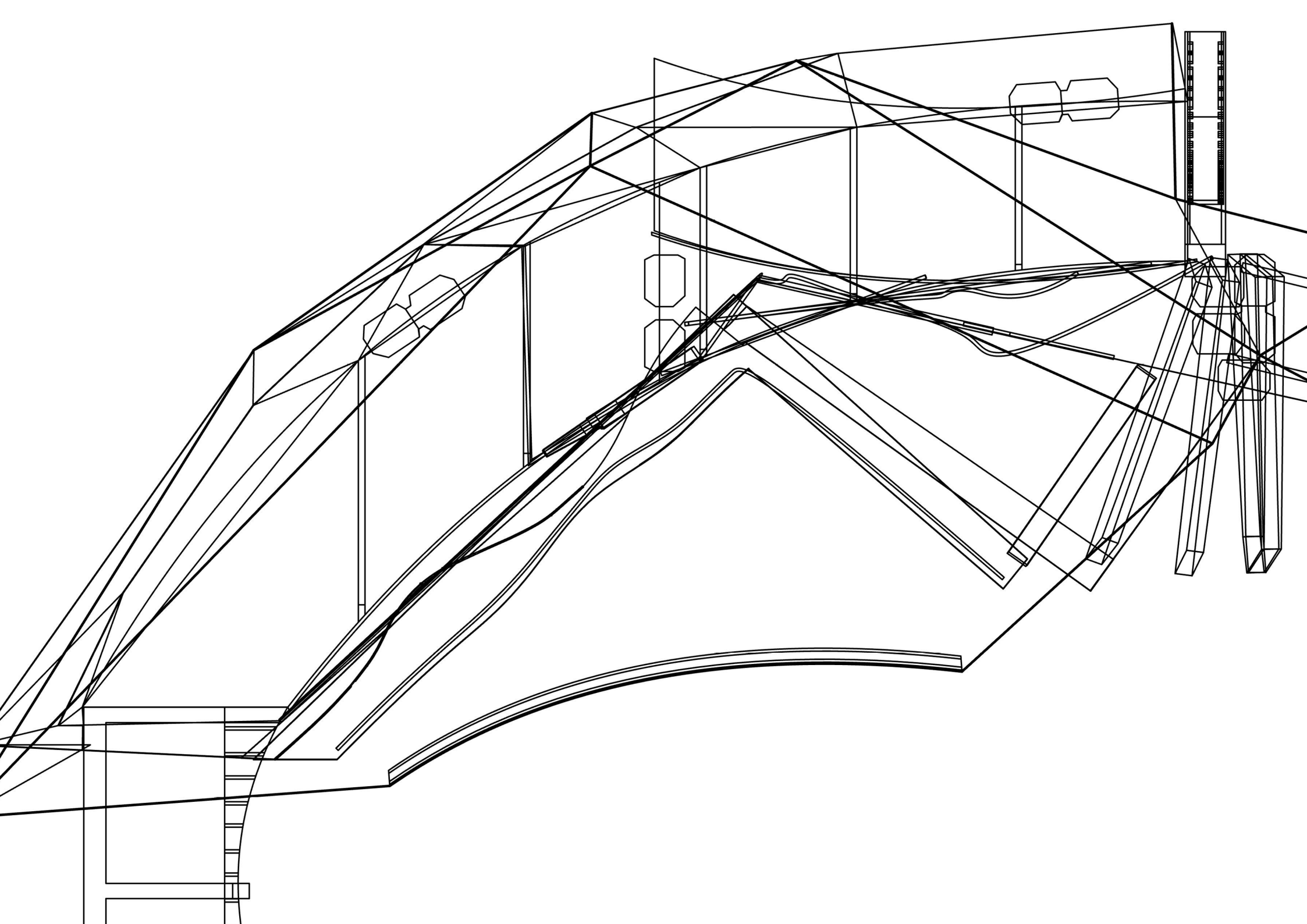


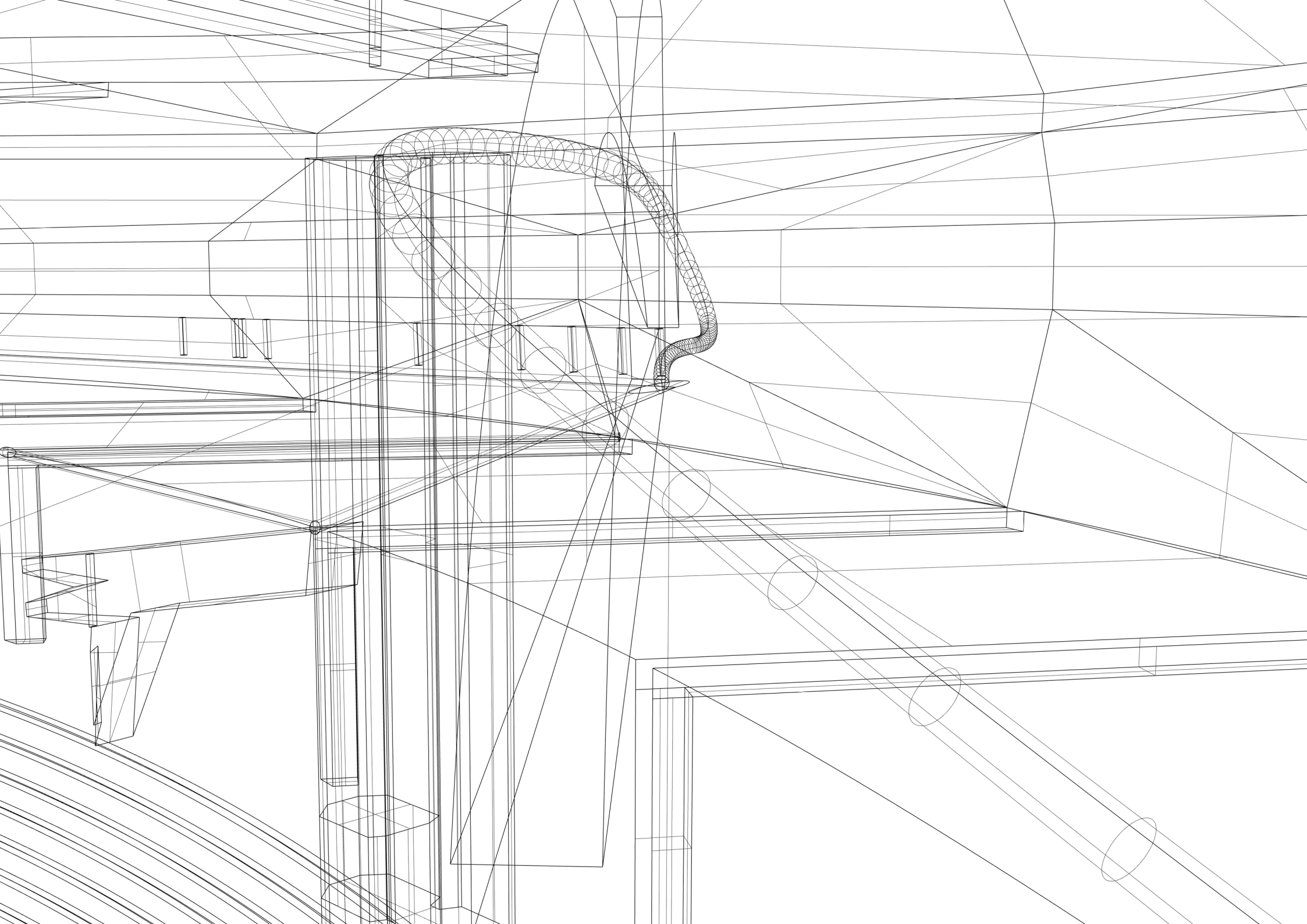


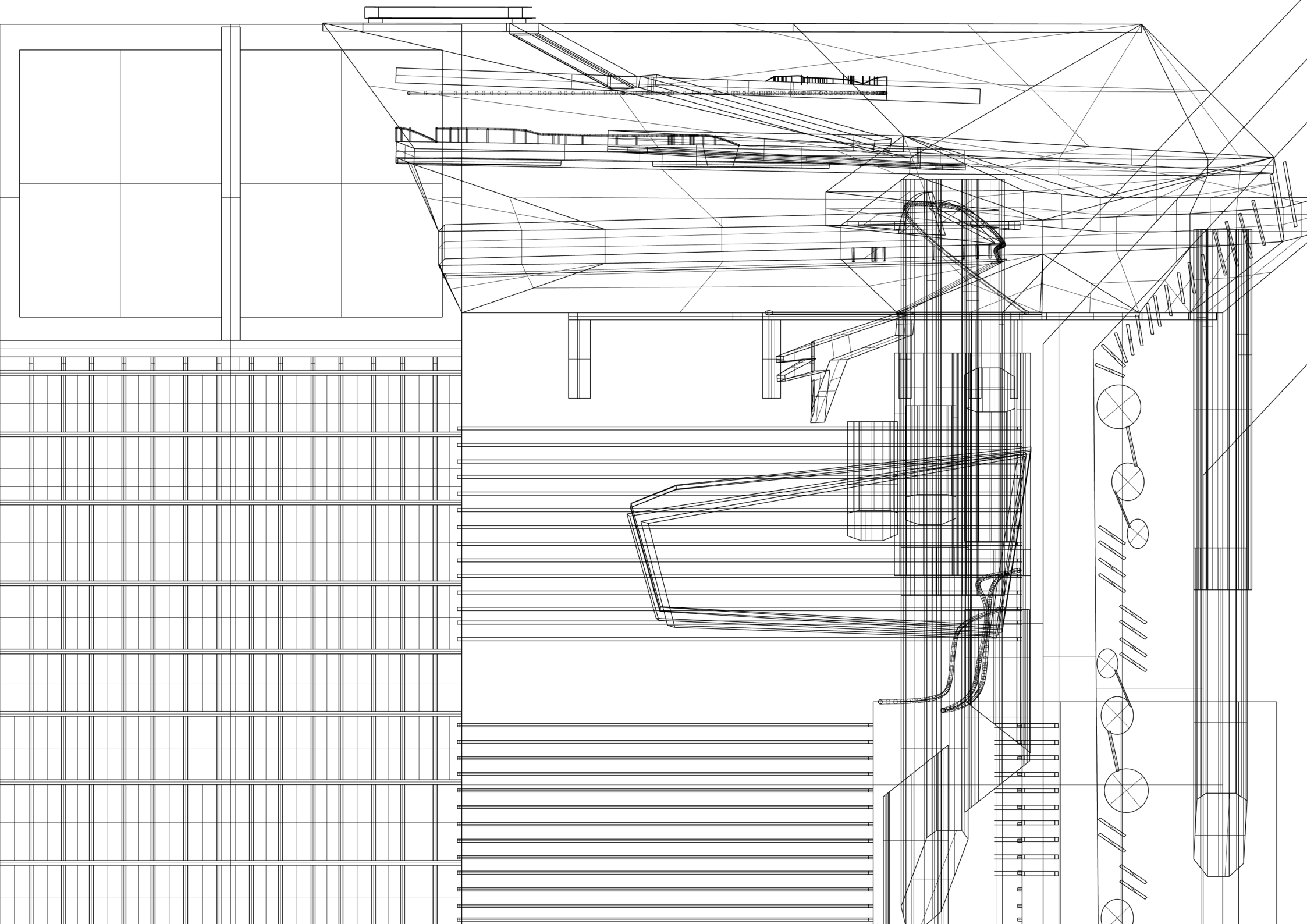


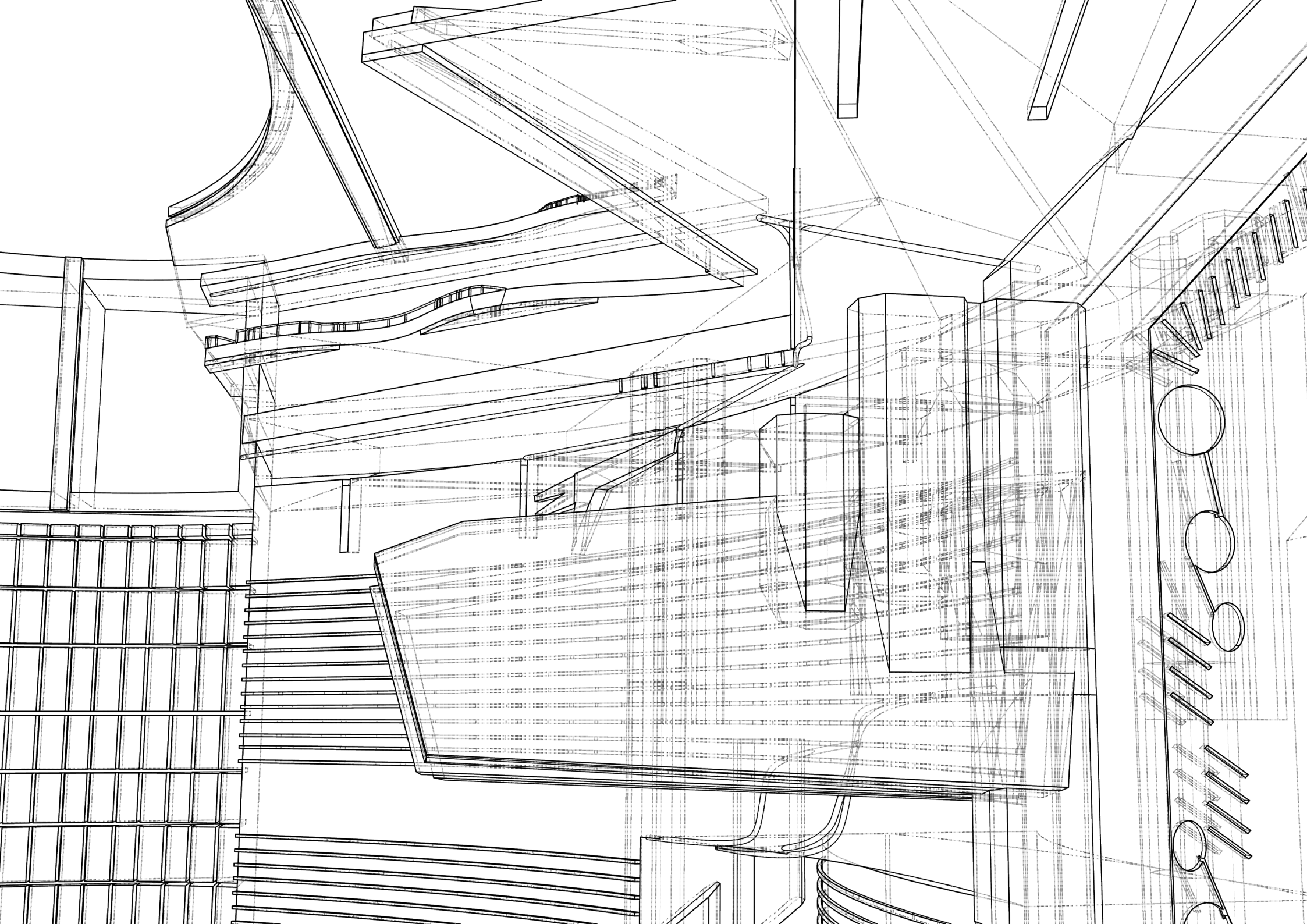


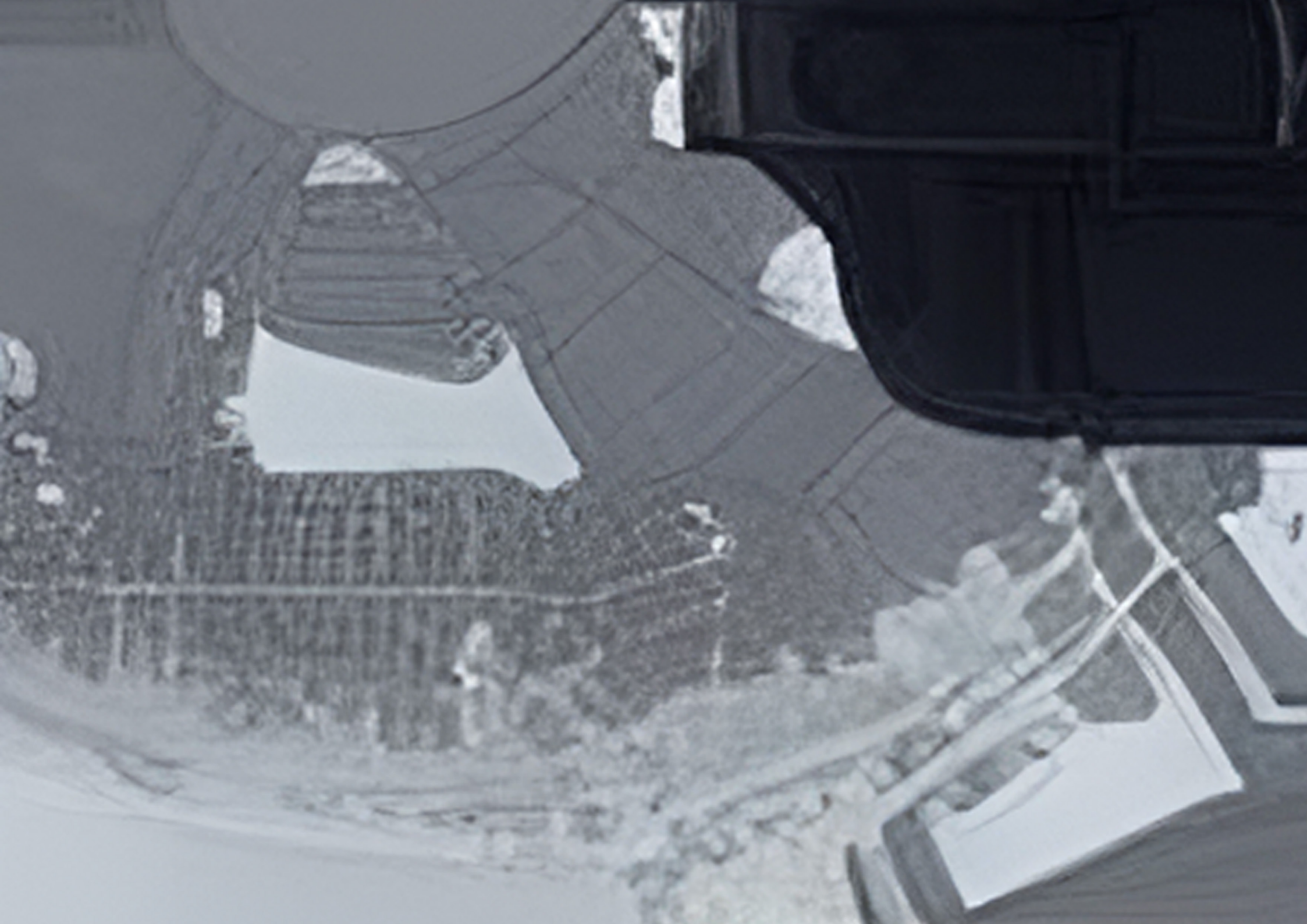




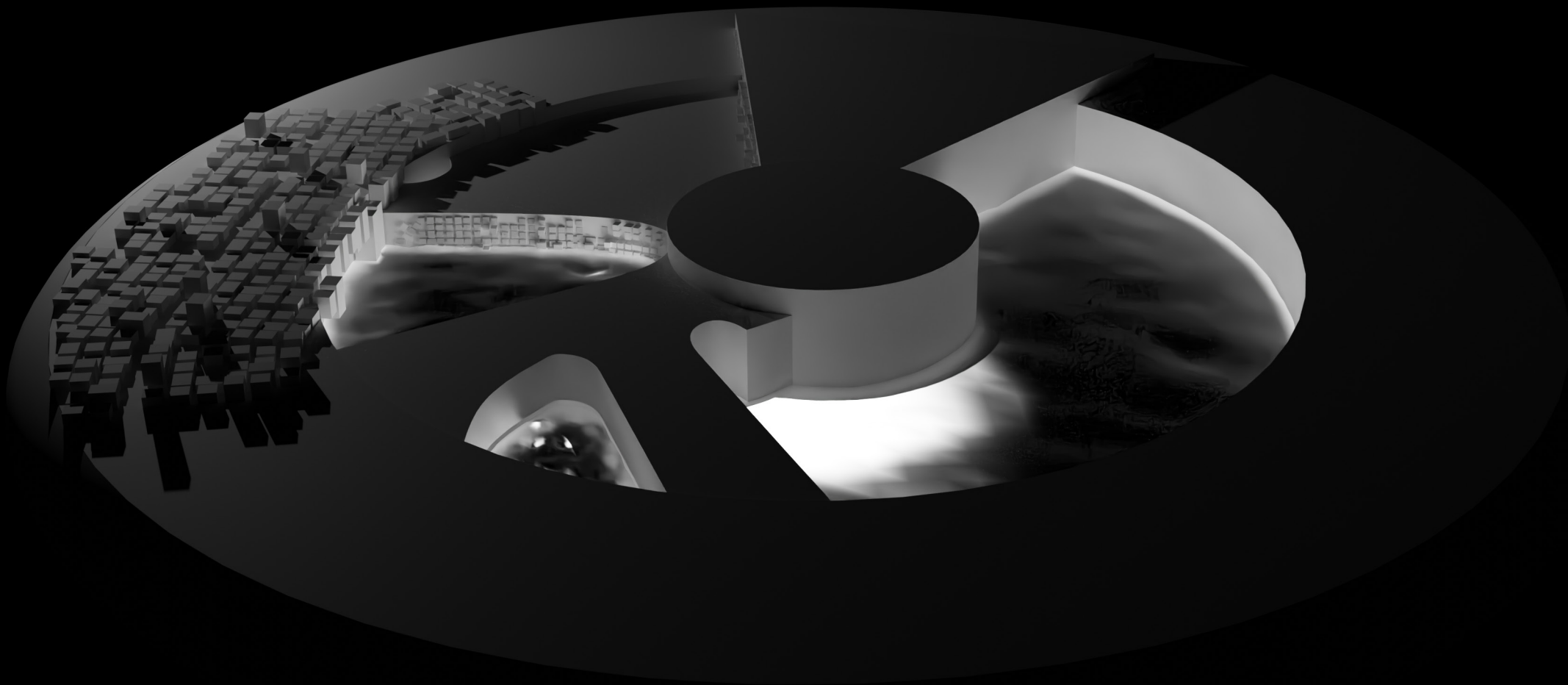


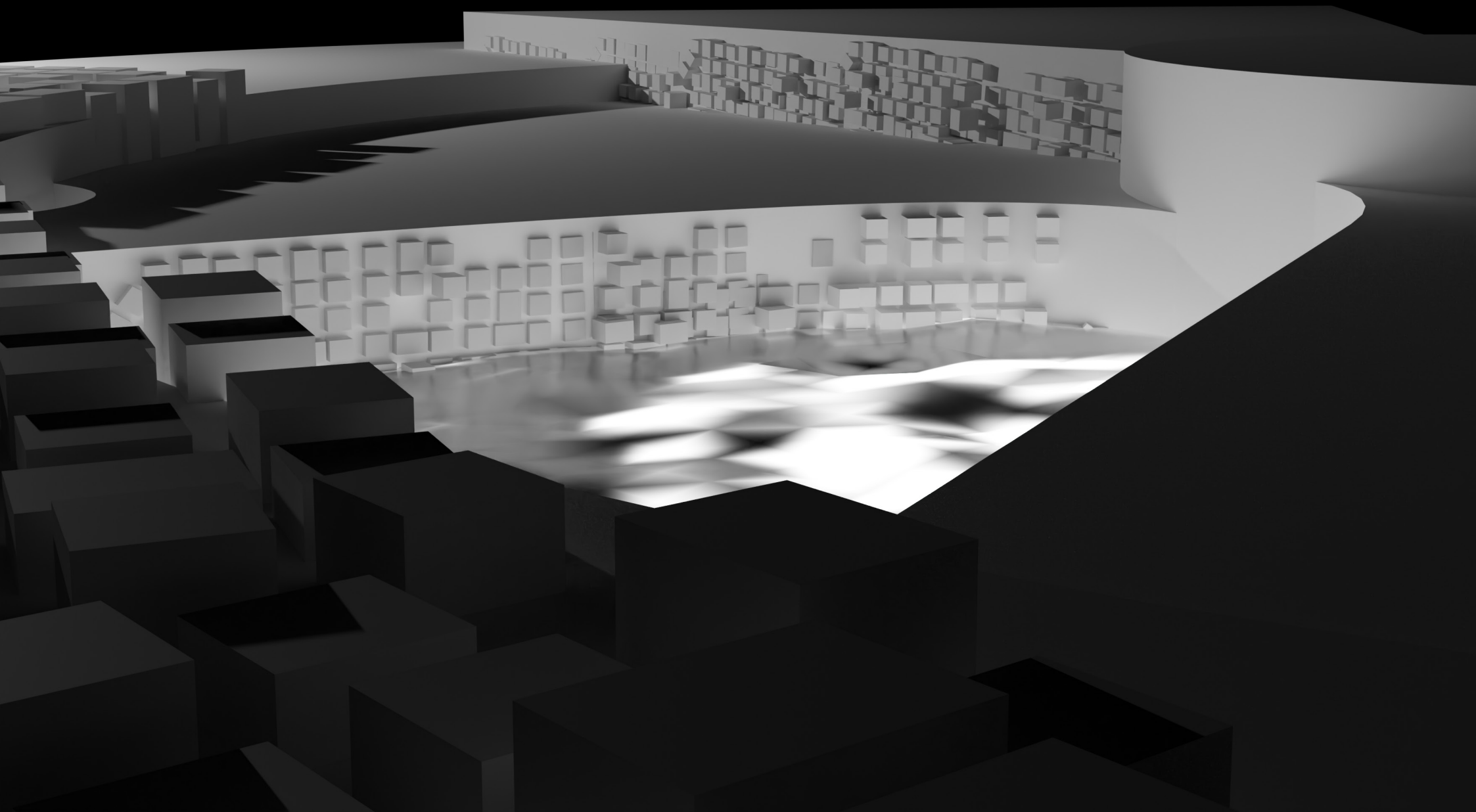


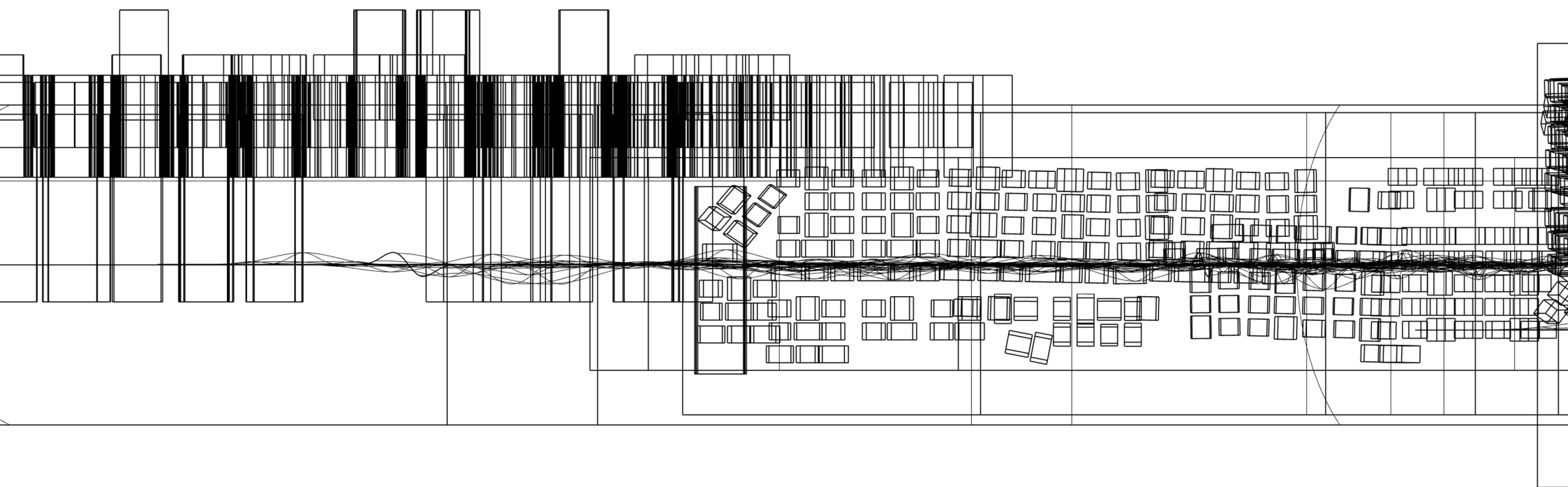


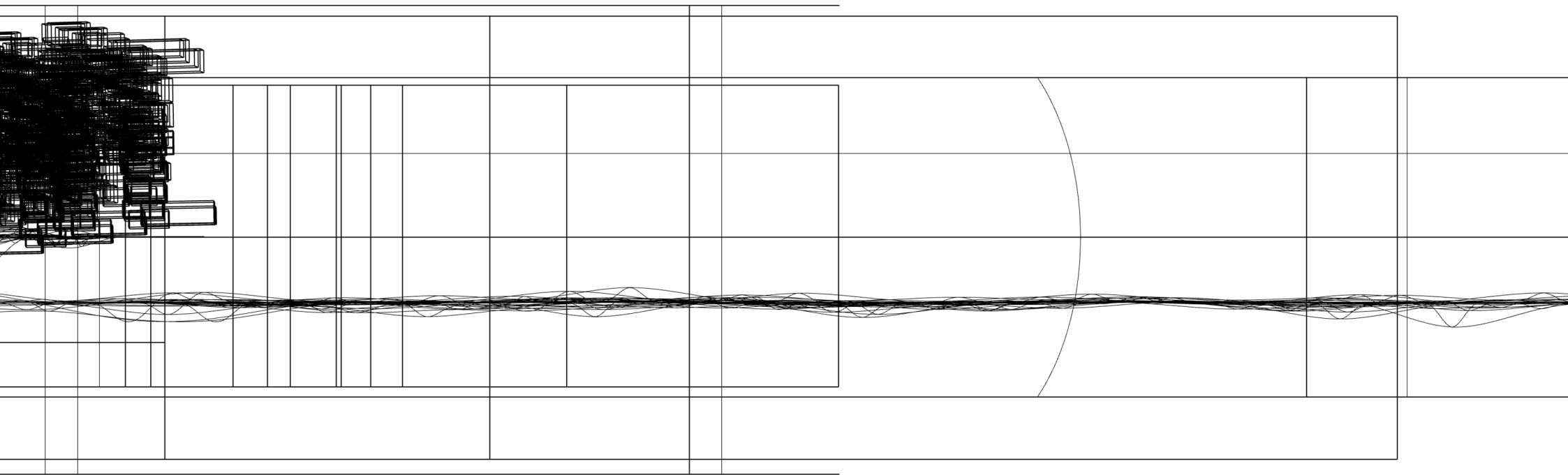


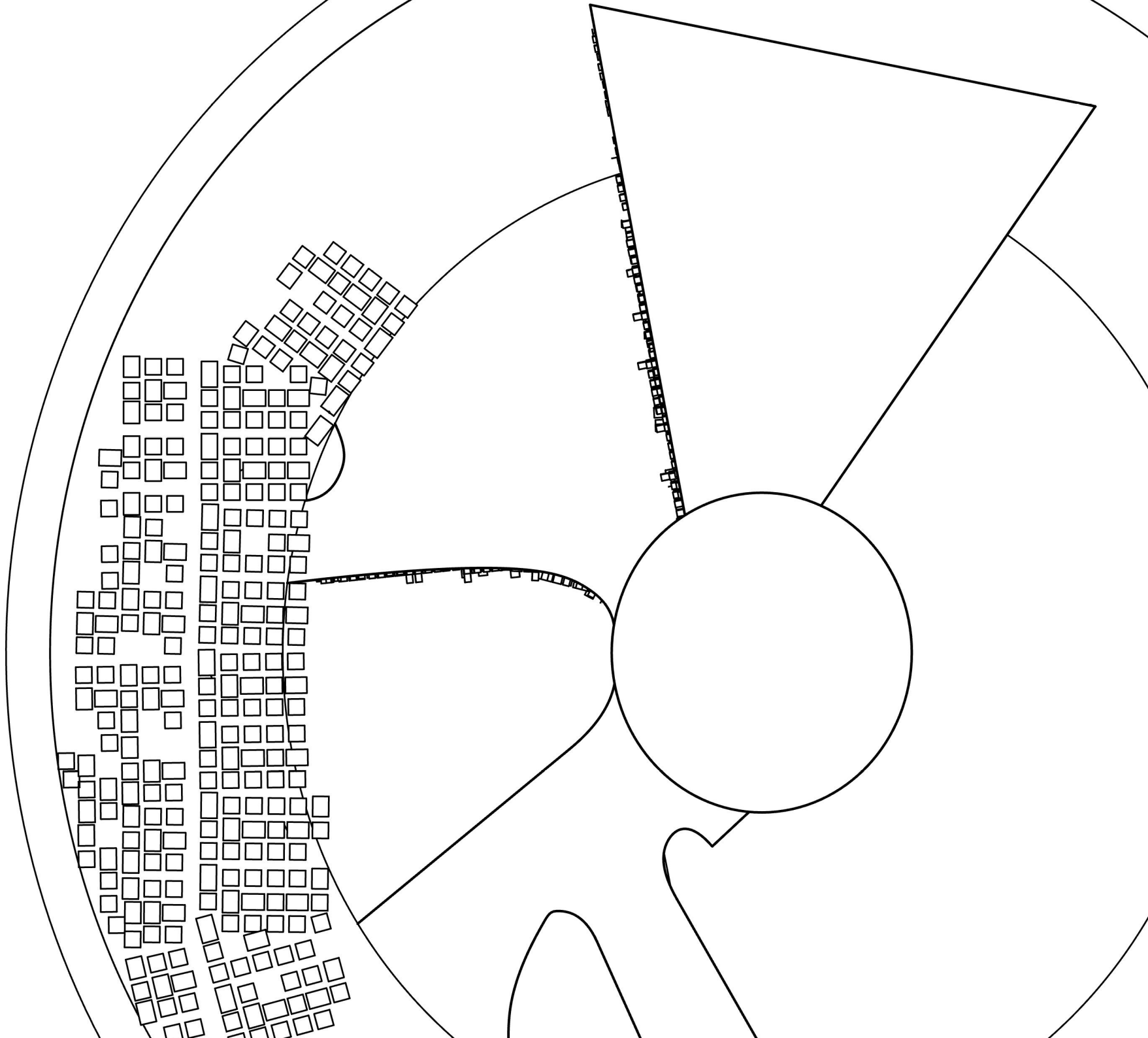


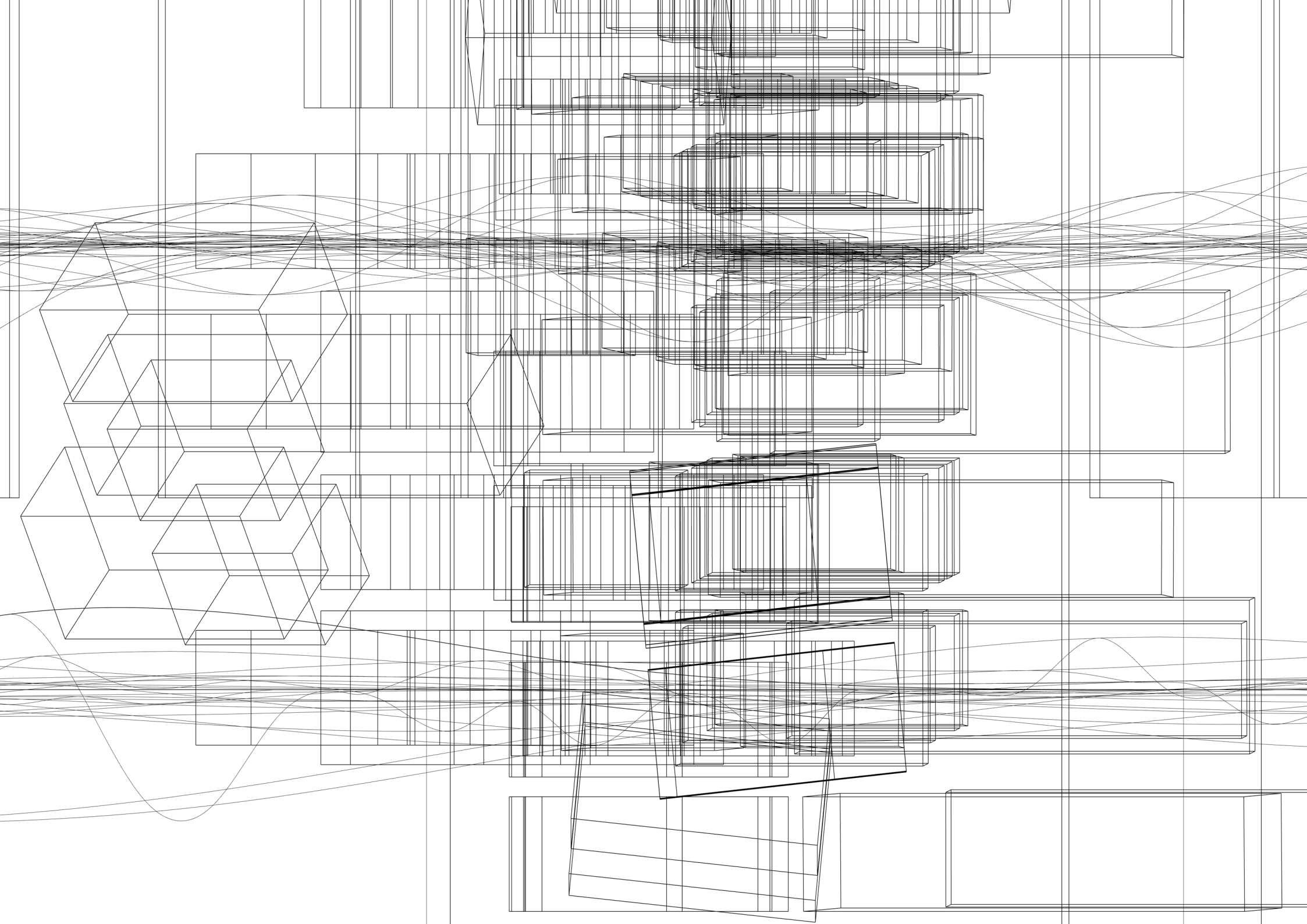




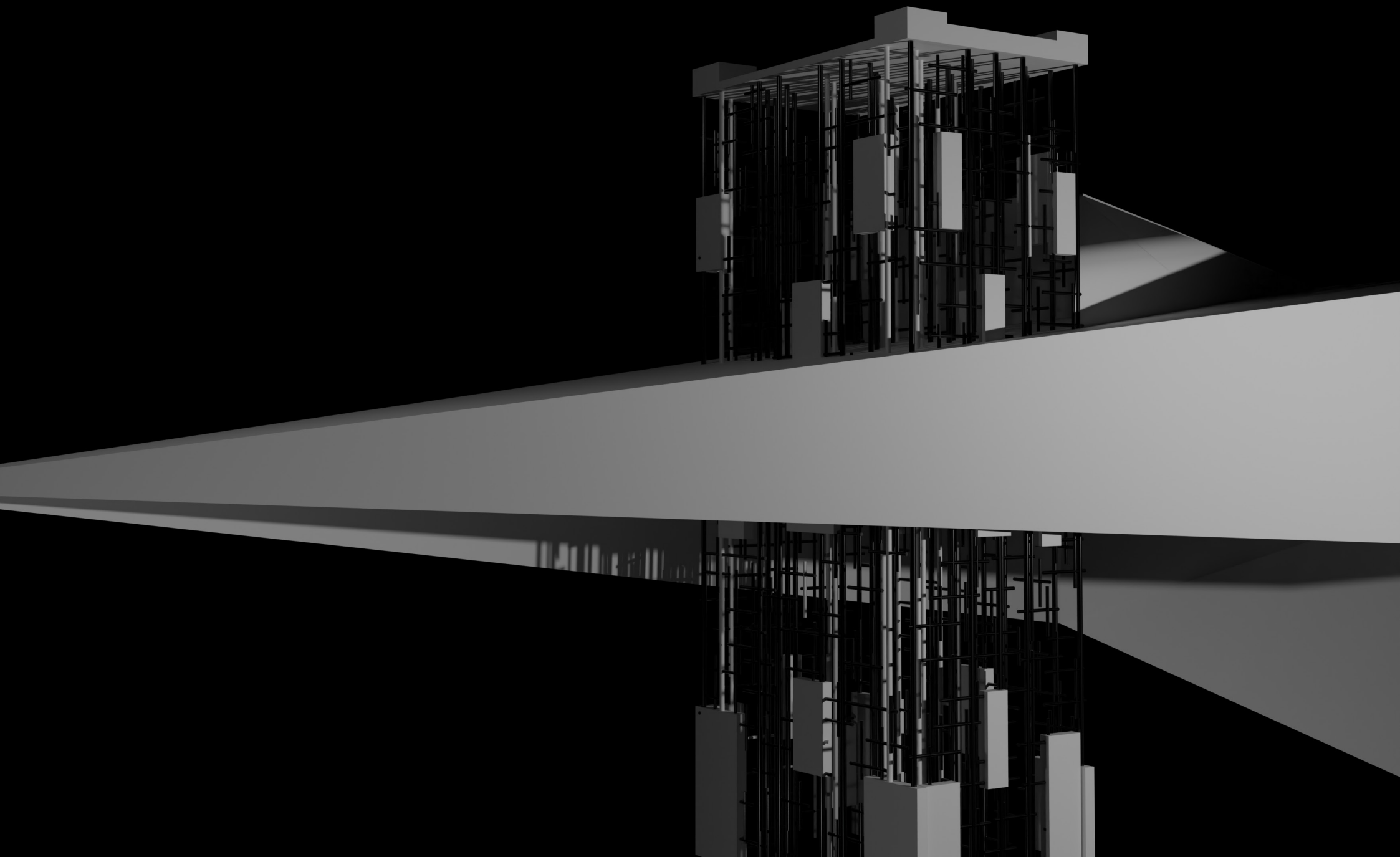




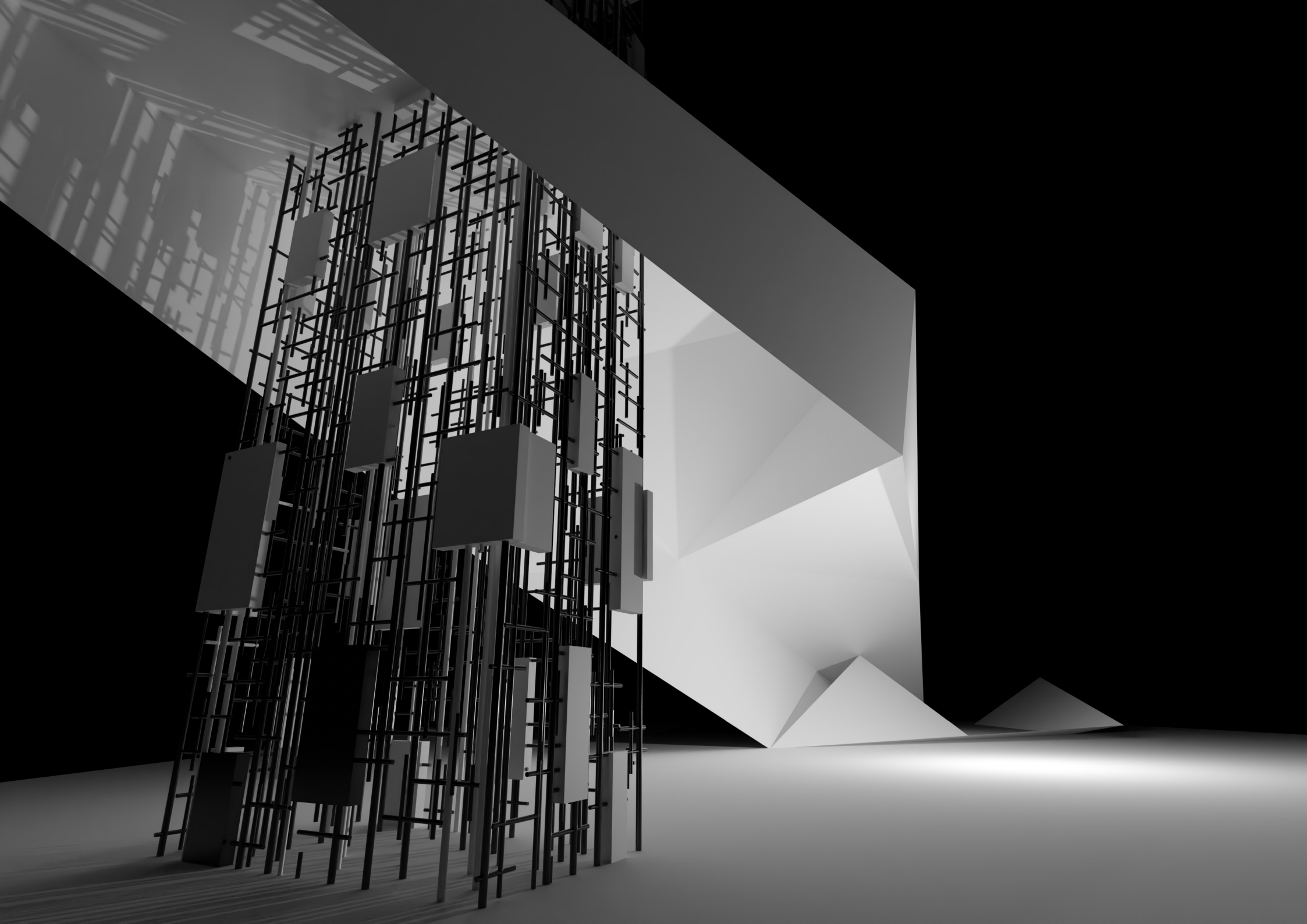


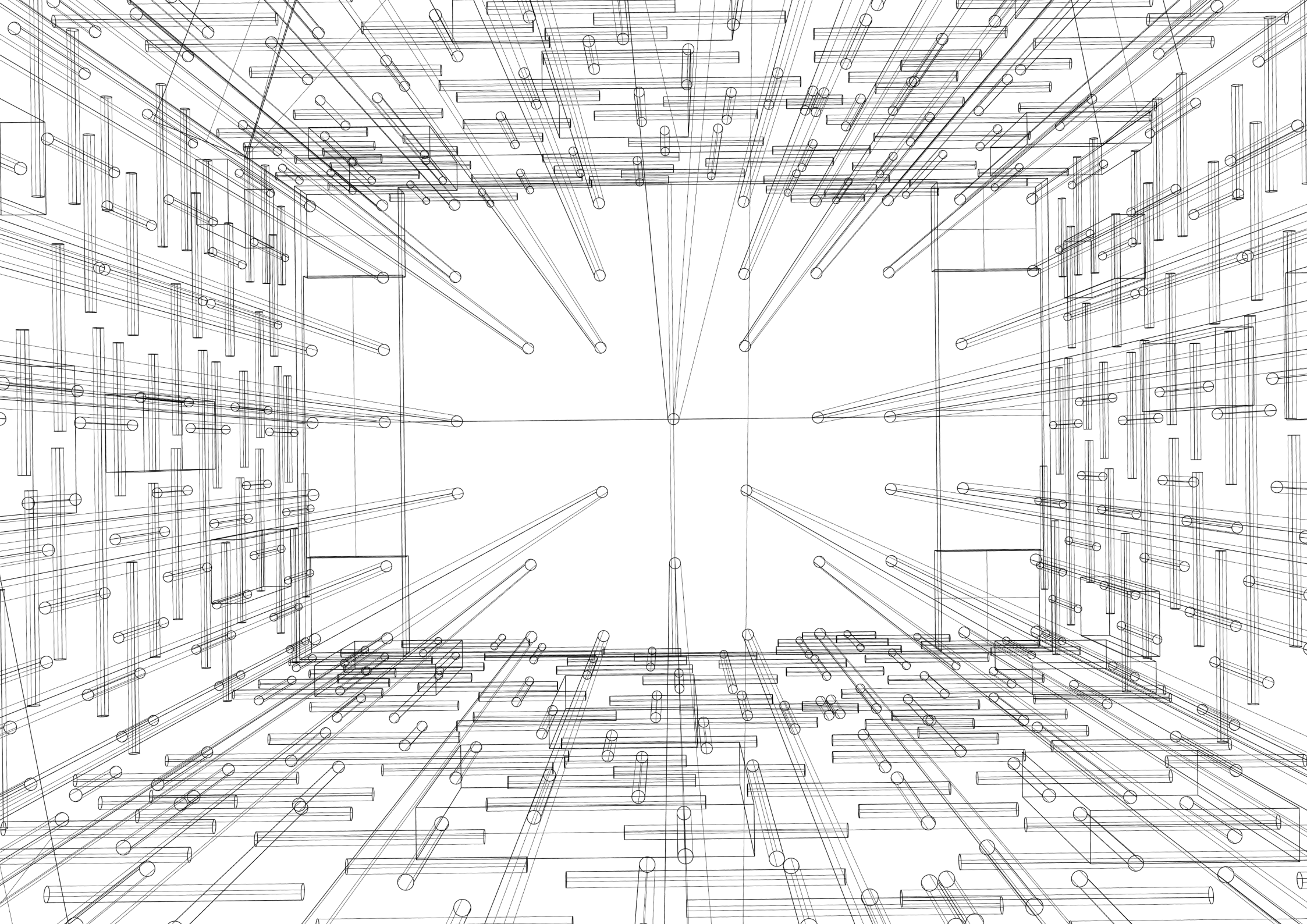


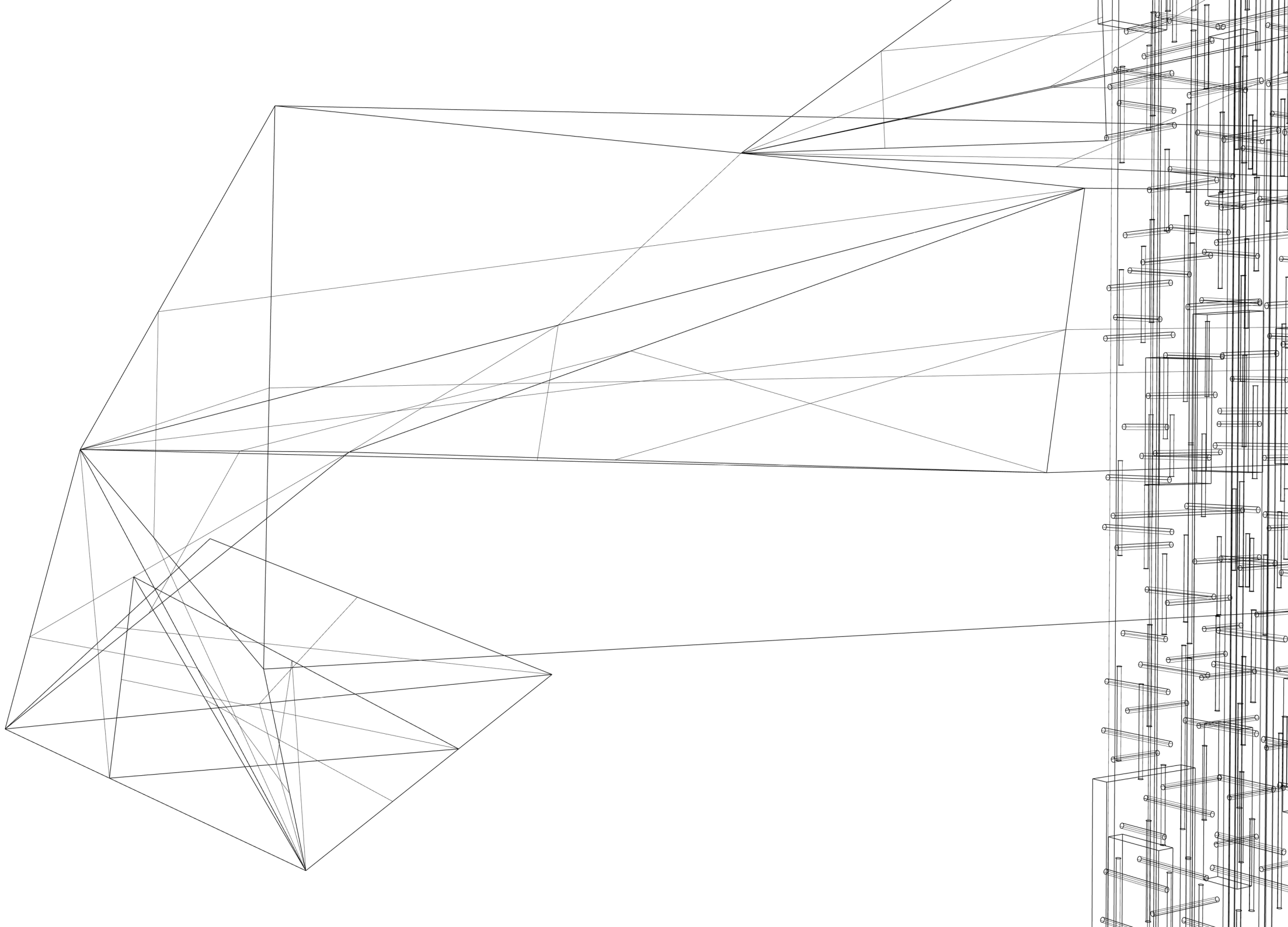


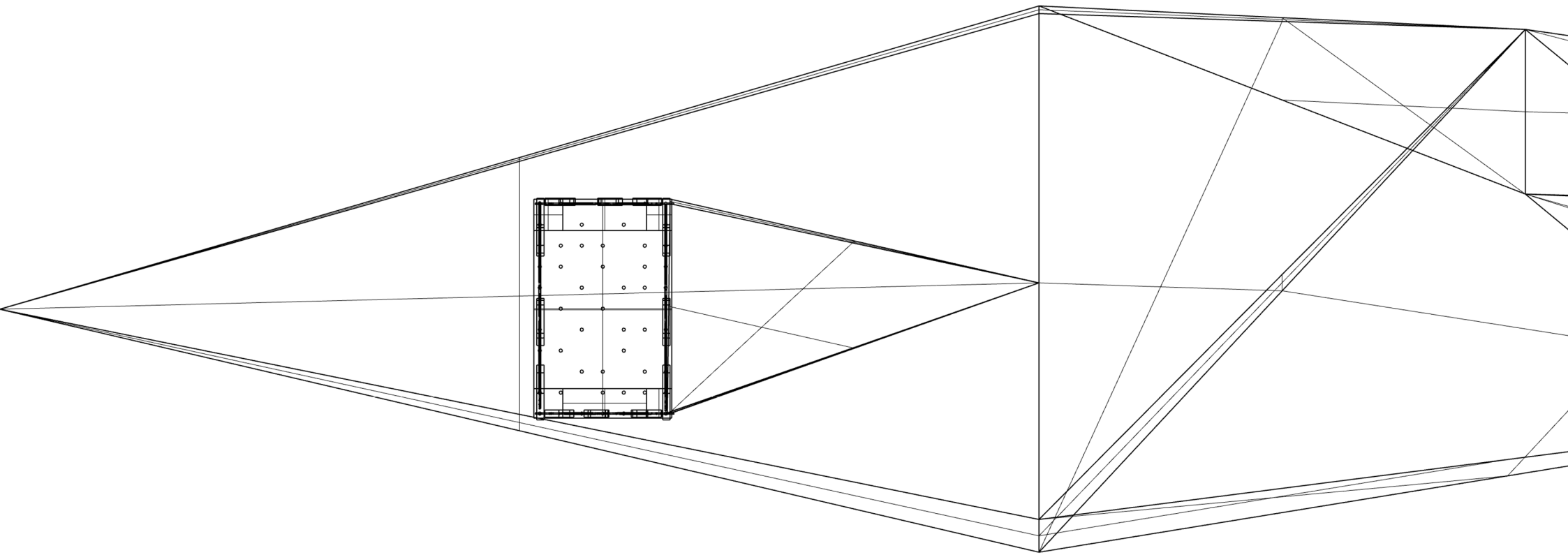


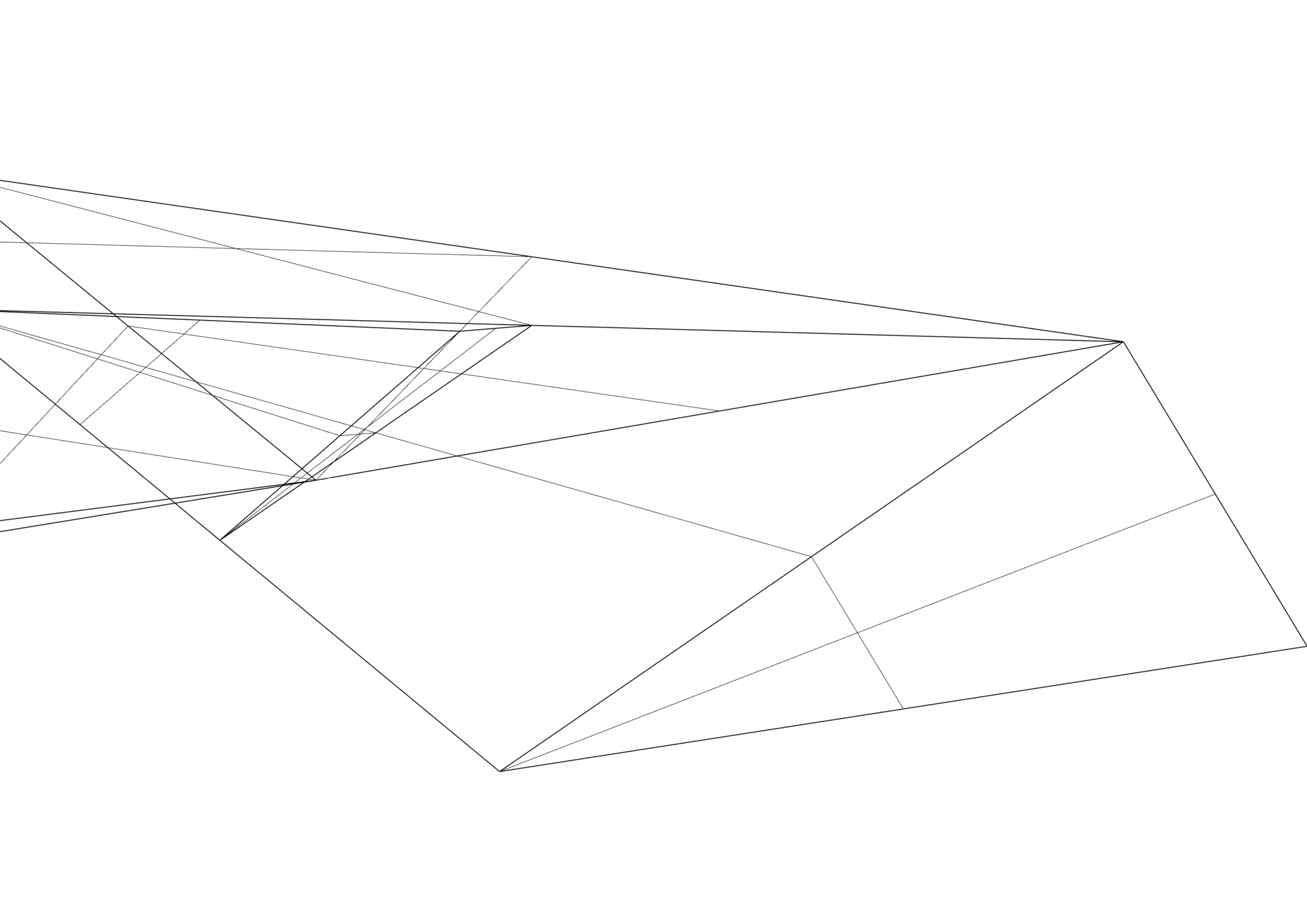












Week 15: Jury

Irragularity Kitbash

